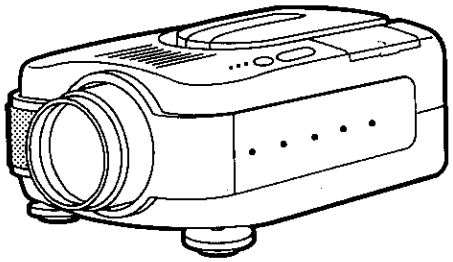
SHARP

SERVICE MANUAL
SERVICE-ANLEITUNG

S84B5XV315P//



SECAM/PAL/NTSC SYSTEM
LCD PROJECTOR
LCD PROJEKTOR

MODEL
MODELL XV-315P

In the interrests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used

Im Interesse der Benutzersicherheit (erforderliche Sicherheitsregeln in einigen Ländern) muß das Gerät in seinen Originalzustand gebracht werden. Außerdem dürfen für die spezifizierten Bauteile nur identische Teile verwendet werden.

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SHARP CORPORATION

SPECIFICATIONS

System:	PAL/SECAM/NTSC3.58/NTSC4.43 SYSTEM
Projection image size (diagonal):	76 cm (30 inch) at a distance of approx. 1 m 152 cm (60 inch) at a distance of approx. 2 m
LCD panels:	9.1 cm (3.6") Twin-TFT Active Matrix panel
No. of pixels:	RGB Trio 100,386 pixels (234(V) × 429(H))
Lens:	F2.8 f = 123 mm
Contrast ratio:	100:1
Horizontal resolution:	PAL:More than 320 lines, NTSC: More than 350 lines
Operating temperature:	5°C ~ 40°C
Storage temperature:	– 20°C ~ 55°C
Power Source:	AC 220 ~ 240V, 50/60Hz
Audio output:	3W (Monoural)
Speaker:	8 cm (Round Speaker)
Power consumption:	185W
Dimensions (W × H × D):	215 mm × 149 mm × 385 mm
Weight:	4.5 kg (9.93 lbs)
Accessories:	Lens Cover: 1 pc. Air Filter: 1 pc. (installed) 21-pin RCA conversion adapter: 1pc.(In some ares, this adapter is not supplied with the unit.)

Specifications are subject to change without notice.

TECHNISCHE DATEN

System:	PAL/SECAM/NTSC3,38/NTSC4,43-SYSTEM
Projektionsgröße(diagonal):	76cm von ca.1m Entfernung 152cm von ca.2m Entfernung
LCD-Tafeln:	9,1cm Doppel-TFT-Aktivmatrixplatten
Anzahl von Bildpunkten:	RGB Trio 100.386 Pixel (234(V) × 429(H))
Objektiv:	F = 2,8 f = 123mm
Kontrastverhältnis:	100:1
Horizontalauflösung:	PAL:über 320 Zeilen NTSC:über 350 Zeilen
Betriebstemperatur:	5℃ ~40℃
Einlagerungstemperatur:	– 20℃ ~55℃
Spannungsversorgung:	220~240V Wechselspannung,50/60Hz
Audio-Ausgabe:	3W(monoaural)
Lautsprecher:	8cm(Rundlautsprecher)
Leistungsaufnahme:	185W
Abmessungen(B × H × T):	215 × 149 × 385mm
Gewicht:	4,5kg
Zubehör(mitgeliefert):	Objektivdeckel: 1St.
Luftfilter:	1St.(eingebaut)
21poliger RCA-Adapter:	1St. (In einigen Ländern wird dieser Adapter nicht mit dem Gerät mitgeliefert.)

Die technischen Daten können ohne vorherige Ankündigung jederzeit geändert werden.

NOTE TO SERVICE PERSONNEL

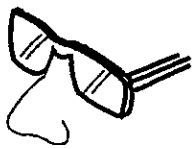
UV-RADIATION PRECAUTION

The light source, metal halide lamp, in the LCD projector emits small amounts of UV-Radiation.

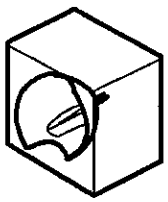
AVOID DIRECT EYE AND SKIN EXPOSURE.

To ensure safety please adhere to the following:

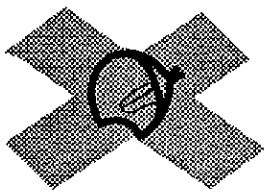
1. Be sure to wear sun-glasses when servicing the projector with the lamp turned "on" and the top enclosure removed.



2. Do not operate the lamp outside of the lamp housing.



3. Do not operate for more than 2 hours with the enclosure removed.



UV-Radiation and Medium Pressure Lamp Precautions

1. Be sure to disconnect the AC plug when replacing the lamp.
2. Allow one hour for the unit to cool down before servicing.
3. Replace only with same type lamp. Type **CLMPF0016DE06** rated 65V/120W.
4. The lamp emits small amounts of UV-Radiation, avoid direct-eye contact.
5. The medium pressure lamp involves a risk of explosion. Be sure to follow installation instructions described below and handle the lamp with care.

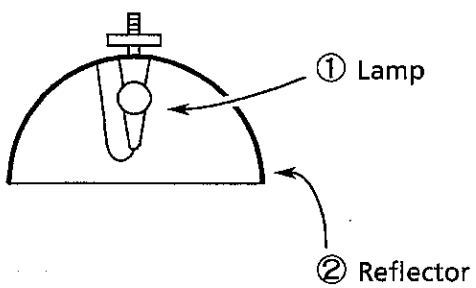
■ Lamp Replacement

Note:

Since the lamp reaches a very high temperature during units operation replacement of the lamp should be done at least one hour after the power has been turned off. (to allow the lamp to cool off.)

Installing the new lamp, make sure not to touch the lamp (bulb) replace the lamp by holding its reflector ②.

[Use original replacement only.]



DANGER ! — Never turn the power on without the lamp to avoid electric-shock or damage of the devices since the stabilizer generates high voltages at its start.

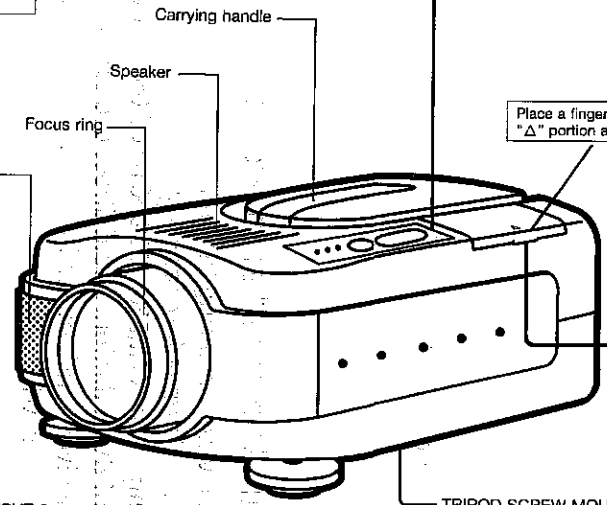
Location of Controls

About the Temperature Monitor Function:

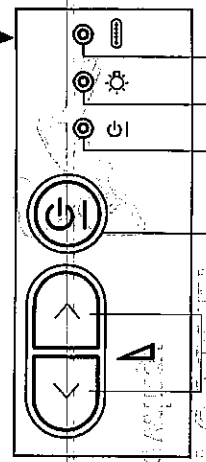
- If the projector starts to overheat due to set-up problems or a dirty filter, "TEMP" will flash in the upper-left portion of the picture. If the temperature continues to rise, then the Temperature Monitor Indicator will turn on and the power will shut off, refer to "Warning lamps", when the warning appears in the picture.
- The Cooling Fan regulates the internal temperature and its performance is automatically controlled. The sound of the fan may change during operation due to changes in the fan speed.

ON SCREEN DISPLAY

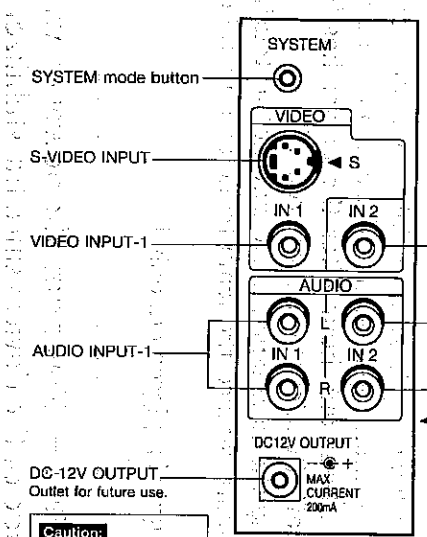
TEMP.



Top control



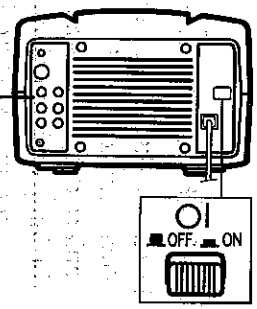
Rear



Caution:
Do not connect any equipment with a maximum current rating over 200mA to the projector.

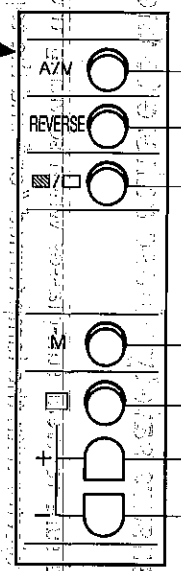
Tripod
Choose a tripod that is sturdy enough to support the full weight of the set (20 kg [44 lbs]).

Caution:
- Do not use a small tripod, since it will not be able to reliably support the set.
- Inquiries should be directed to your local Sharp dealer or Sharp Service Station.



MAIN POWER switch

Controls inside cover



Setting Up the Projector

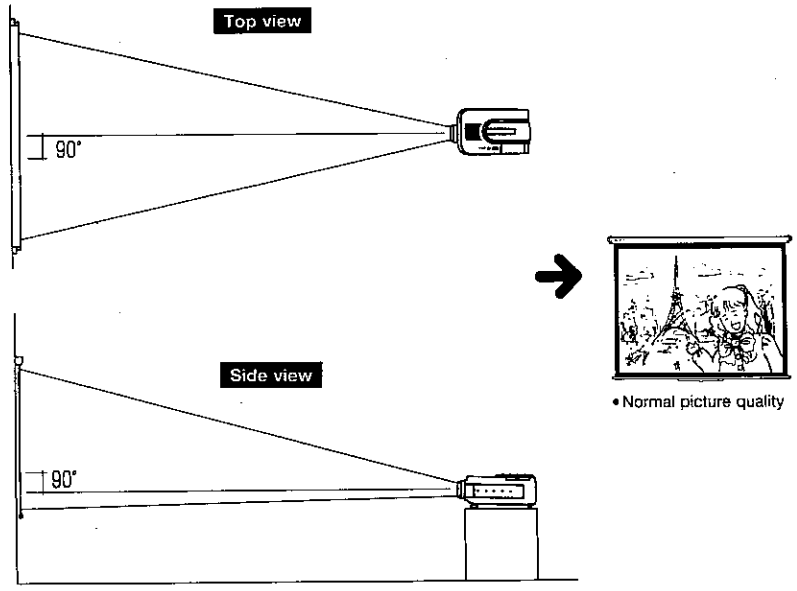
Installation precautions

Do not place the projector in excessively humid or dusty locations or in location exposed to soot or cigarette smoke. If the lens, mirror or other optical component become dirty, the picture will blur or darken, making viewing difficult.

- Do not expose the projector to extreme heat or cold.
  Operating temperature: 5°C~40°C
  Storage temperature: −20°C~55°C

Example of a standard setup

■ Position the screen so that it is not in direct sunlight or room light. Light falling directly onto the screen turns the screen white and makes viewing difficult. Close the curtains when using the screen in a bright room.
■ Place the projector at a 90° angle to the screen to achieve optimum viewing quality.



• Normal picture quality

If the screen and projector are not properly positioned with respect to one another, the picture may become distorted and difficult to view.

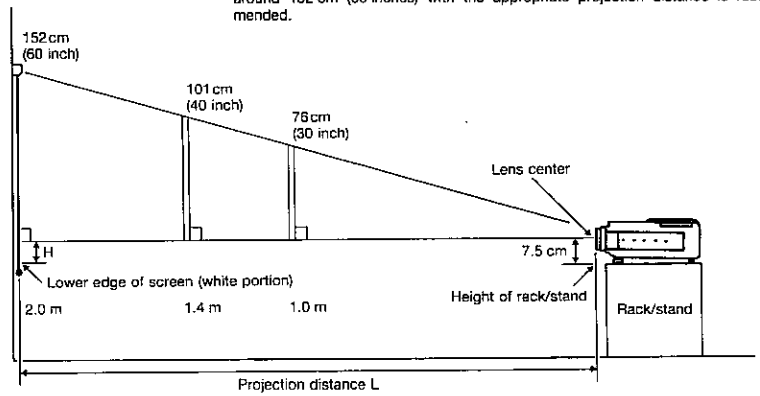
■ This projector has a fixed-focus lens.
Refer to the diagram below to determine the picture size and projection distance.
■ The picture can be focused when the projector is within 1m to 4m of the screen. Please set up the projector within this range.

Relation between projection distance and screen size

Screen size (diagonal)	Projection distance L	Distance from lens center to lower edge of screen (H)
152 cm (60 inch)	2.0 m	23 cm
101 cm (40 inch)	1.4 m	16 cm
76 cm (30 inch)	1.0 m	12 cm

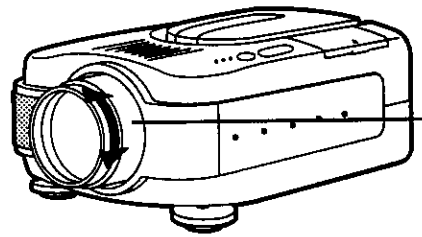
*Focusing parameters will allow projection onto screens of from 76 cm (30 inches) to 304 cm (120 inches) in size. However, for best picture quality, a screen size of around 152 cm (60 inches) with the appropriate projection distance is recommended.

Height of projector



■ After positioning the projector, adjust the focus as shown.

Focusing



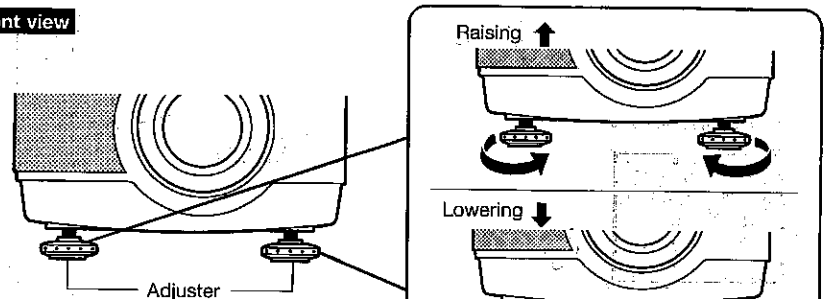
■ Focus the lens so that the screen image is as sharp as possible.
■ Please turn for turning on the power.

Turn the focus ring to focus the image.

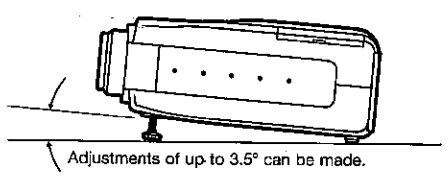
Levelling and height adjustments

■ Use the adjuster at the bottom of the projector to adjust the height of the projector.

Front view



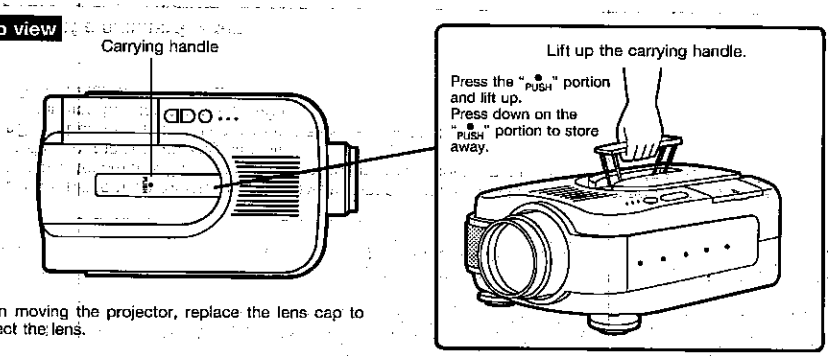
When the height of the projector is adjusted with the adjuster, the image on the screen will look distorted since the projector is not at right angles to the screen.



When moving the projector

■ Use the carrying handle when moving the projector.

Top view


Carrying handle
Lift up the carrying handle.
Press the "PUSH" portion and lift up.
Press down on the "PUSH" portion to store away.

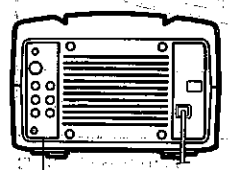
When moving the projector, replace the lens cap to protect the lens.

Connecting the Projector

SYSTEM 1

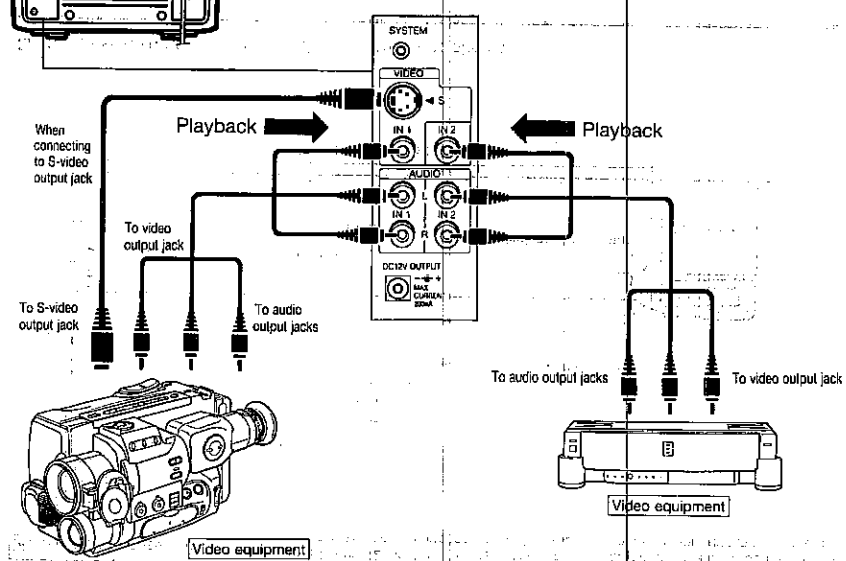
To connect the projector to video equipment for viewing played-back images.

Rear

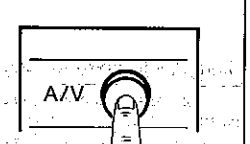


Notes:

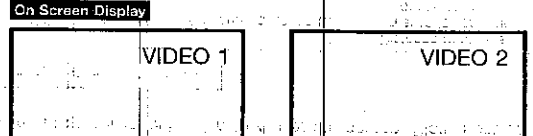
- When connecting the video equipment, please be sure that the power is off. This will protect both the projector and the equipment being connected.
- Refer to the instruction manuals of other equipment being connected to the projector for proper connection.



Use the A/V SELECT button to select either VIDEO 1 or VIDEO 2.



On Screen Display



S-Video Terminal Priority Input Function

The Video Input 1 and S-video input terminals on this projector are set up to give priority to input from the S-video terminal.

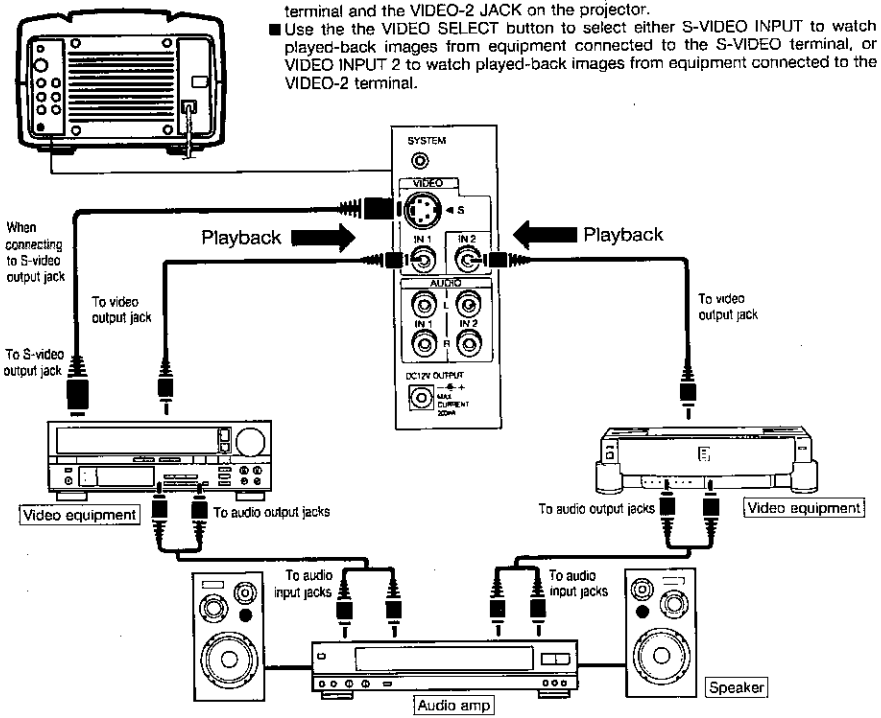
- When video equipment is connected to both terminals, the video image from the S-video input terminal is shown on the screen.
- To view video input from video equipment connected to the Video Input 1 terminal, disconnect the plug from the S-video terminal.

SYSTEM 2

To connect the projector to video and audio equipment for viewing played-back images. (With an audio amplifier connection.)

Rear Terminals

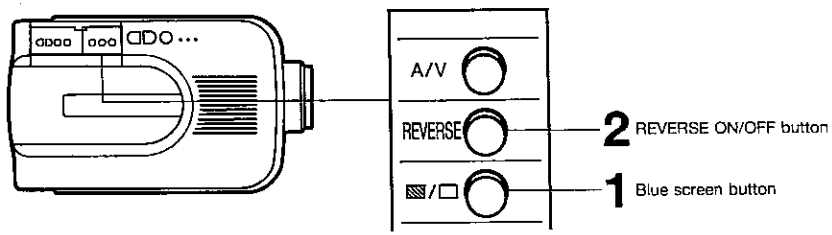
- When connecting equipment with an S-video output, such as an S-VHS VCR, and one or more video decks to an AV amplifier, connect up both the S-VIDEO terminal and the VIDEO-2 JACK on the projector.
- Use the the VIDEO SELECT button to select either S-VIDEO INPUT to watch played-back images from equipment connected to the S-VIDEO terminal, or VIDEO INPUT 2 to watch played-back images from equipment connected to the VIDEO-2 terminal.



Other Functions

- When the BLUE SCREEN function is turned ON, the screen will turn blue when there is no video signal input to the projector.
- Press the BLUE SCREEN button once more to turn the BLUE SCREEN function OFF.

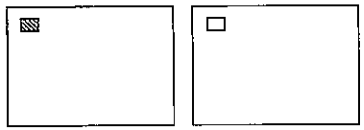
Controls inside cover



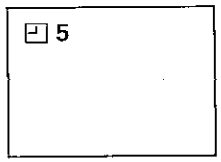
1 Blue screen function

- When the Blue Screen button is set to ▨/□ (ON/OFF), the following display is shown for a few seconds on your screen.

Screen display



- When the BLUE SCREEN button is set to the ▨ (ON) position, the screen turns blue when no signal or noise is input. (If the Blue Screen function is engaged for over 15 minutes, the AUTO OFF function engages and power is automatically turned off. Five minutes before the power turns off, the remaining time (in minutes) is displayed at one-minute intervals in the top left of the screen.)



2 Reversing the image

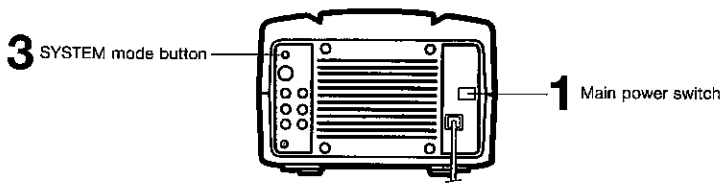
- When the REVERSE ON/OFF button is set to REVERSE mode, the following display is shown for a few seconds on your screen.

Screen display

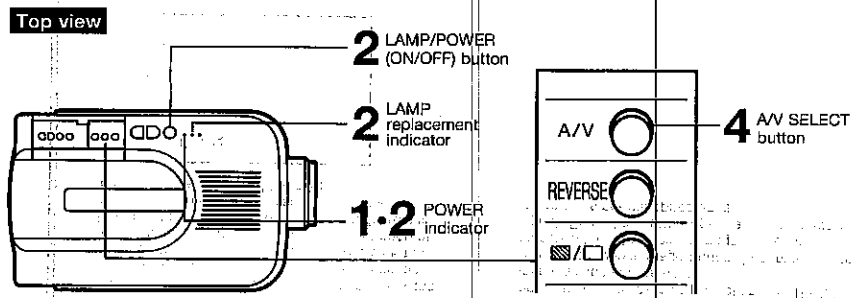
- When a mirror or reverse image is required for an application such as rear projection, the REVERSE image switch can be used.
  Press the reverse image button. The image on the screen will flip to a mirror image of the input video signal. Press the button again and the image will return to its normal appearance.

Using the Projector

Rear view



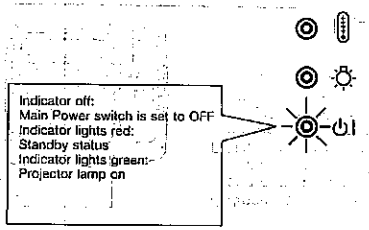
Top view



1 Turning on the main power switch

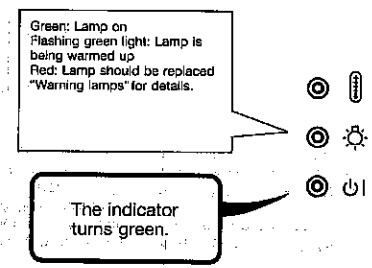
Set the Main Power switch to ON.

- When you are using the projector for the first time or when the power indicator lamp is off, set the main power switch to ON. (Indicator lights red.)
- The power indicator lamp turns off when the main power switch is set to off.



2 Turning on the lamp power

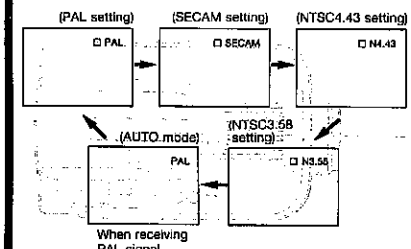
Press LAMP/POWER (ON/OFF) button


Green: Lamp on
Flashing green light: Lamp is being warmed up
Red: Lamp should be replaced
"Warning lamps" for details.
The indicator turns green.

3 System change

Press SYSTEM mode button.

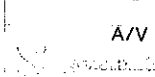
- When the button is pressed, the select COLOR system is displayed in the top right corner of the screen for about a few seconds.



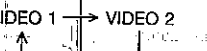
*In Auto mode, "PAL", "SECAM", "NTSC4.43" or "NTSC3.58" is displayed on the screen for about a few seconds when modes are automatically changed.

4 A/V Select

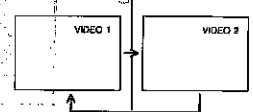
Press the A/V SELECT button.



- **A/V button on the projector operator panel**
  The indication is cycled as shown below when the button is pressed.



The screen display changes as shown in these figures.



Notes:

- Even when the power is turned off using the POWER button, the COOLING FAN will continue to operate as long as the projector's internal temperature remains high (about 90 seconds). "Do not disconnect the AC power cord or turn the rear power switch off until the cooling fans have stopped. Failure to do so may reduce the life of the lamp and LCD panel".
- If the projector is turned on immediately after it has been turned off, it may take a short while before the lamp is turned on. (During this period the Lamp Monitor indicator flashes green.)

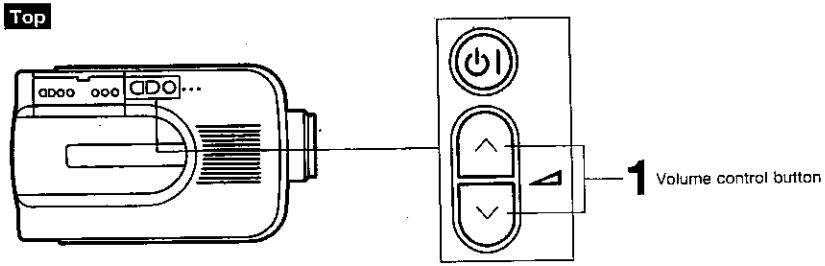
Notes:

- This projector is equipped with three video input systems: S-video, Video-1, and Video-2.
- To choose between these systems, press the A/V button to select input from either the VIDEO-1 (S-VIDEO given priority) or the VIDEO-2 terminals.

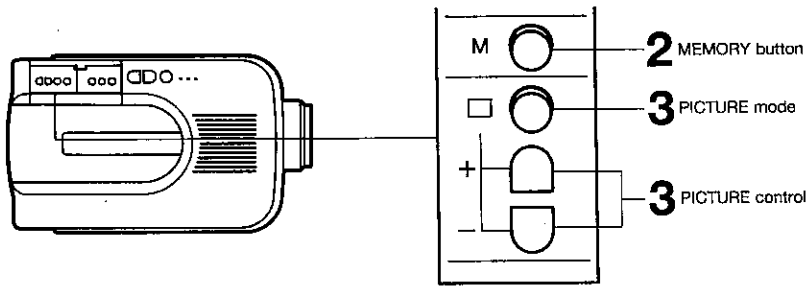
Picture and Volume Control

■ This projector's picture is set to standard specifications at the factory. However, you can adjust it to suit your own preferences using the VIDEO ADJUST buttons.
■ The positions of the picture settings are committed to memory when set.

Top

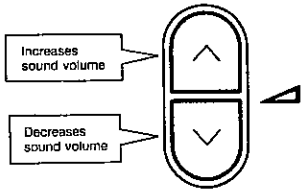


Controls inside cover

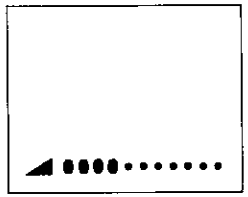


1 Adjusting the Volume

Press the Volume control button.



On Screen Display



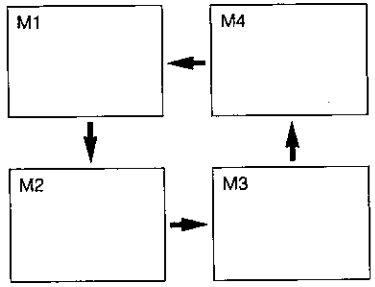
The number of segments (0-16) displayed increase or decrease as the volume is raised or lowered.

2 Selecting the MEMORY

Press the MEMORY button.

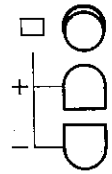
- Press the MEMORY button to select the desired customer pre-selected picture settings. Each of the four memory positions can be adjusted to your own preferred settings.
- When the MEMORY button is pressed while the settings are shown on the screen, the display will change as follows.

On Screen Display

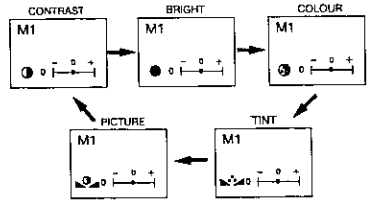


3 Picture adjustments

Use the PICTURE MODE and PICTURE CONTROL buttons to set the picture to suite your preferences.



The picture modes change as shown below when the Picture mode button is pressed.
(M1 shows a memory number.)



- Select the mode that is to be adjusted and use the PICTURE control buttons to make the adjustments.
  * The modes are displayed on the screen for about a few seconds. The adjustments have to be made while the screen is displayed.

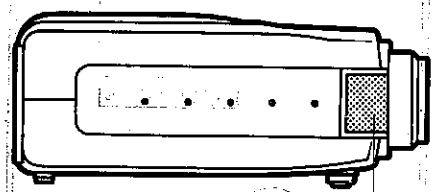
Tint setting can only be adjusted when receiving NTSC signal.

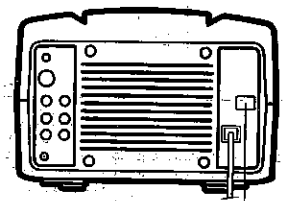
Maintenance

Air filter cleaning

■The air filter should be cleaned about every 100 hours. Clean the filter more often when the projector is used in a dusty location.

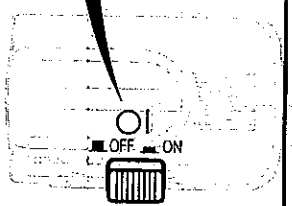
•Have your dealer replace the filter when it is no longer possible to clean it.





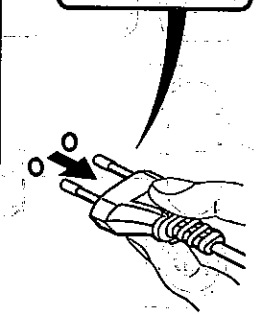
1 Turning off the main power

Turning off the power with the main power switch.



2 Unplugging the power cord

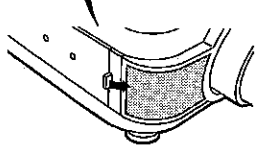
Unplug the power cord.



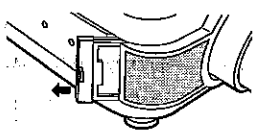
In some areas, the plug may not resemble the one shown in the illustration.

3 Remove the air filter.

To remove the air filter first grasp the protruding tab and move it in the direction of the arrow.

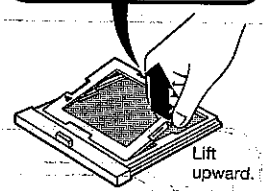


Then, pull the filter straight out, as indicated by the arrow.

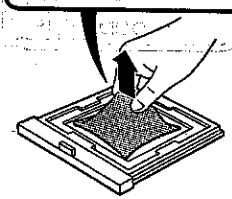


4 Remove the sponge filter.

To remove the filter, hook your finger under either one of the "(▲)" marks.

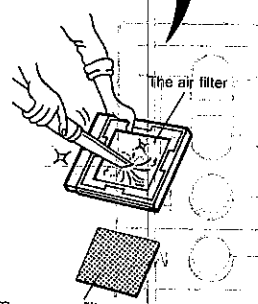


Remove the sponge filter by grasping.



5 Clean the air filter.

Clean the dust off the air filter and the sponge filter with a vacuum cleaner.



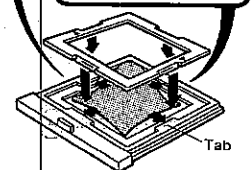
The sponge filter

•Clean the filter in warm water with a neutral detergent when the filter is very dusty. Dry the filter in a place not exposed to sun light.

6 Replace the air filter.

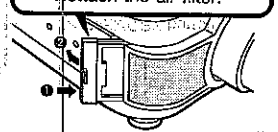
Replace the sponge filter in the air filter as before.

Install the filter holder by inserting its edges under the tabs.



Press down on the filter holder at the four tab locations to ensure that it is firmly secured.

Reattach the air filter.



Align the ridges on the top and bottom of the air filters with the grooves in the projector body, and slide in.

Lamp

■The projector's lamp has a limited operating life.

When the lamp is nearly burned out, the picture and colour quality deteriorate. In this event, have the lamp replaced by qualified service personnel.

Replacing the projector lamp requires special technical expertise and should be performed by your local Sharp dealer or Sharp Service Station.

Warning lamps

■This projector is equipped with warning indicators that go on when an abnormal condition occurs.
■There are two warning indicators in the projector: the temperature warning lamp and lamp replacement indicator.
■If the projector malfunctions, the temperature warning lamp or the lamp replacement indicator will light red and the power is turned off. Perform the following procedures when you have turned off the main power switch.

Warning lamp	Symptom	Potential problems	Countermeasures
Temperature	The temperature inside is too high.	•The air vents are blocked.	•Install the projector in an appropriate location.
		•The air filter is clogged.	•Clean the filter as described.
		•The cooling fan is defective. •Any of the internal circuits are defective.	•Turn in the projector for service.
Projector lamp	The projector lamp does not light.	•The projector lamp has reached the end of its life. •The projector lamp circuit is defective.	•Turn in the projector for service.

NOTE:
If the temperature warning lamp lights up red and the power cuts off, the projector will enter stand-by mode.
After turning off the projector, be sure to wait until the unit's internal temperature has sufficiently lowered before turning it on again (at least 5 min.).

Before Calling for Service

No picture	•The projector is not plugged into the mains supply. •The MAIN POWER switch is set to off. •The bright (−), contrast (−) controls are set to the minimum position. •Filter may not be inserted correctly or notatall.
Colour is poor or faded	•Check that the COLOUR (+) and (−) controls are properly adjusted.
Picture is blurred	•Adjust the focus •The projection distance is too long or short to allow for proper focus.
An unusual sound is occasionally heard from cabinet	•If picture is normal, the sound is due to cabinet shrinkage caused by temperature changes. This will not effect operation.
Maintenance indicator lights up	•Refer to "Warning lamps".
No sound	•Check if the volume control is turned all the way down. •Check to make sure that the wires at the back of the LCD projector are properly connected.

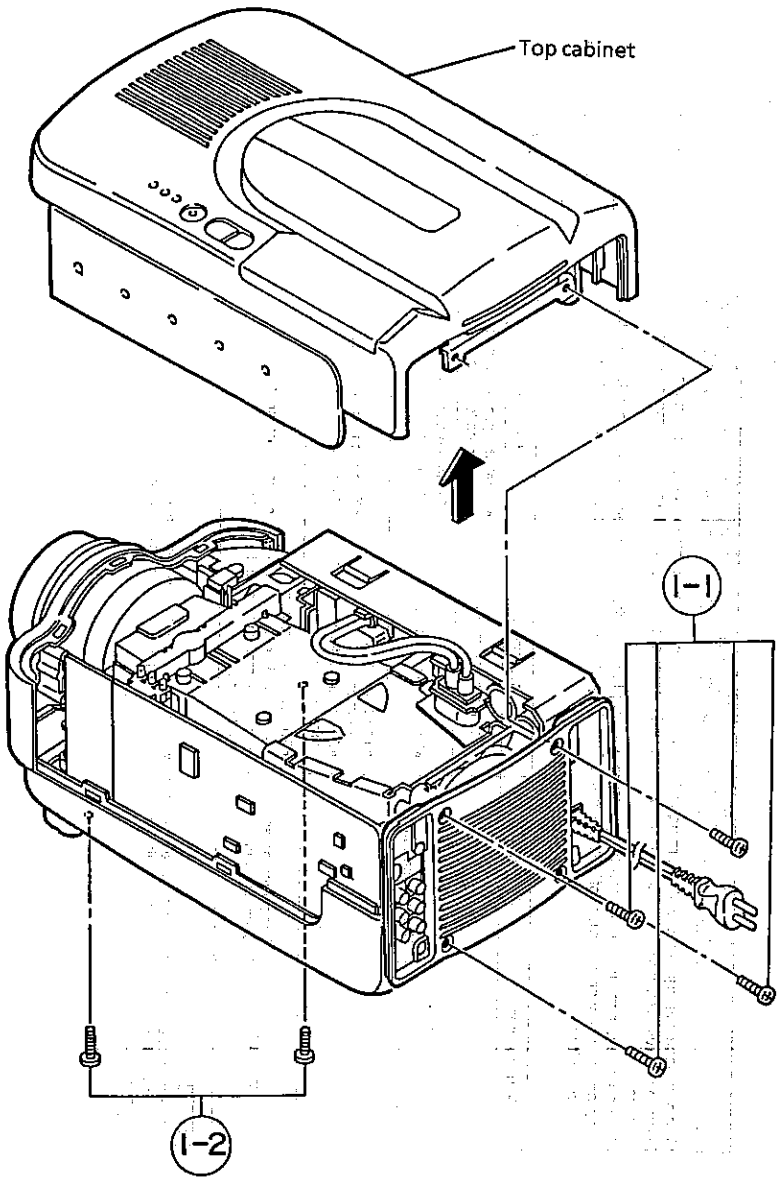
REMOVING THE MAJOR PARTS

1. Removing the rear panel

1-1. Unscrew the six screws off the rear panel and take out the rear panel.
1-2. Unscrew the two screws off the bottom of the unit.

Precautions on Handling the Cabinet
when removing and attaching the top cabinet, take the following precautions. The cable that connects the speakers on the inside of the top cabinet with the main PWB is short. Do not pull up the top cabinet too far, because otherwise the cable connector may be damaged. Slowly lift the top cabinet a little, disconnect the speaker cable from the "SP" connector on the main PWB, and take out the top cabinet completely. To place the top cabinet back in position, first reconnect the speaker cable to the "SP" connector on the main PWB, and then fit the top cabinet to the bottom cabinet. In this fitting, keep the flexible cable, which runs between the LCD panel and the main PWB, inside the top cabinet. This cable might be caught between the top and bottom cabinets.

1

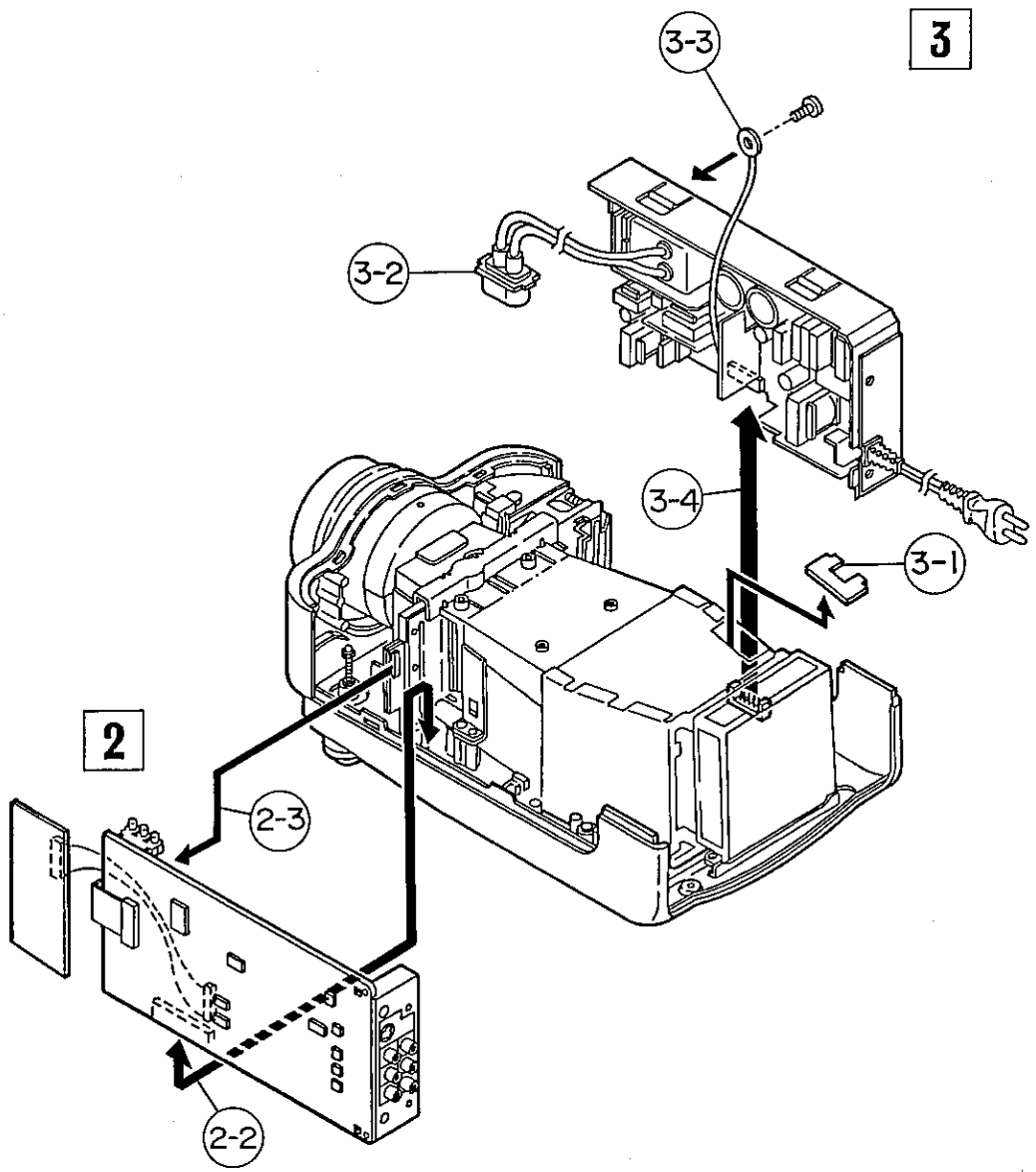


2. Removing the PWB

2-1. Disconnect the LCD panel connector.
2-2. Before servicing, connect the service part QCNW-3467CEZZ between the EA connector on the main PWB and the EA connector on the relay PWB.
2-3. Before servicing, connect the service part QCNW-3751CEZZ between the LCD panel connector and the LCD connector.

3. Removing the power/ballast PWB unit

3-1. Untwist the lamp guide catch and take out the light shielding plate.
3-2. Untwist the lamp guide bracket catch and detach the bracket.
3-3. Unscrew the screw to disconnect the grounding lug terminal. Now take out the power/ballast unit.
3-4. Before servicing, connect the service part QCNW-3468CEZZ between the EB connector on the power/ballast PWB unit and the EB connector on the relay PWB.



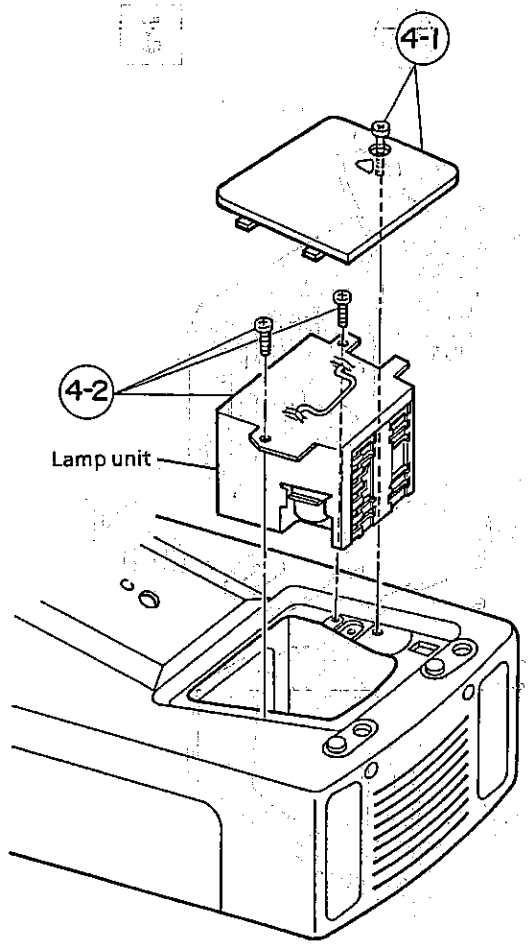
4. Removing the lamp unit

4-1. Unscrew the screw to detach the bottom cover.
4-2. Unscrew the two screws off the lamp unit. Take the lamp unit out.

5. Removing the optical unit

Unscrew the four screws off the optical unit and take the optical unit out.

4



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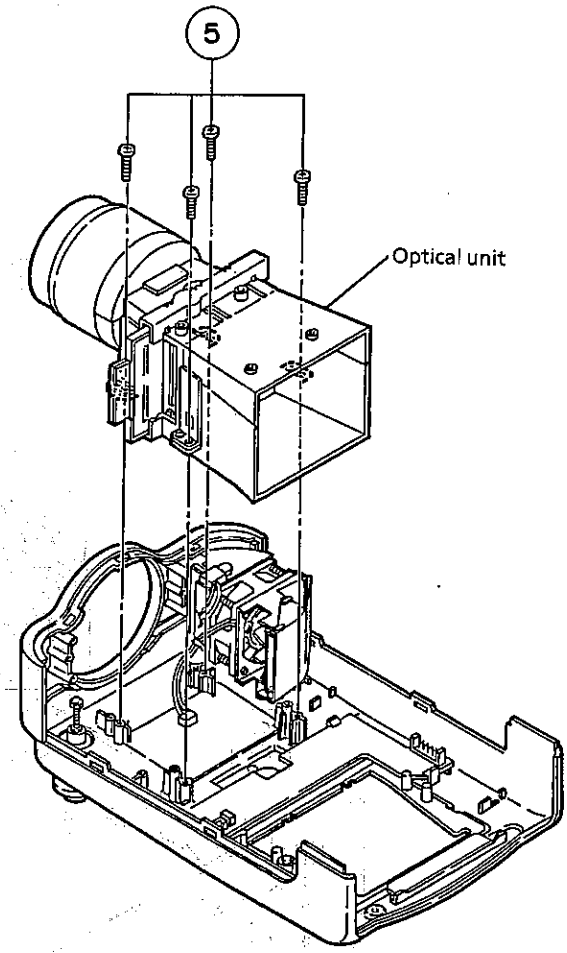


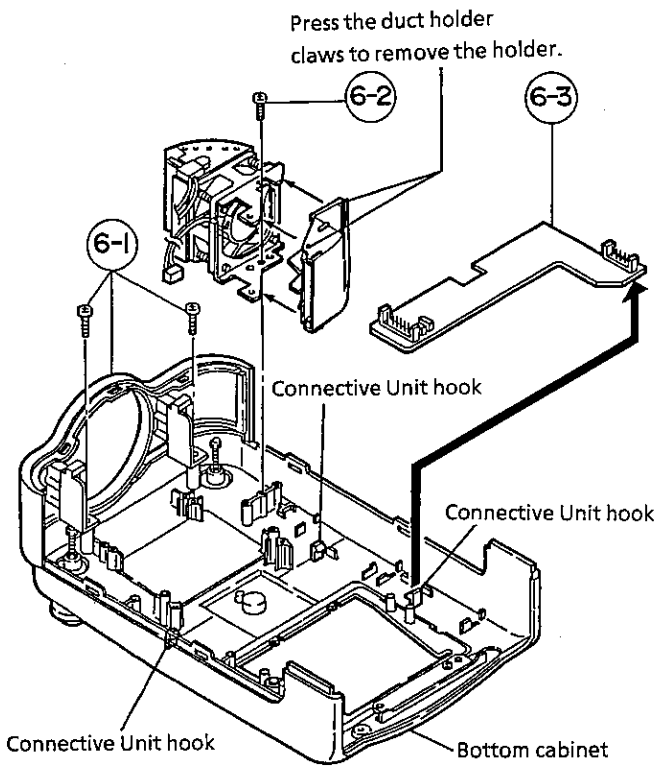
6. Removing the fan and Connective Unit

6-1. Unscrew the two screws to take out the front cover of the unit.
6-2. Keep the fort claws pressed and release the duct holder. Then unscrew the screw to take out the fan unit.
6-3. Undo the three hooks and take out the Connective Unit.

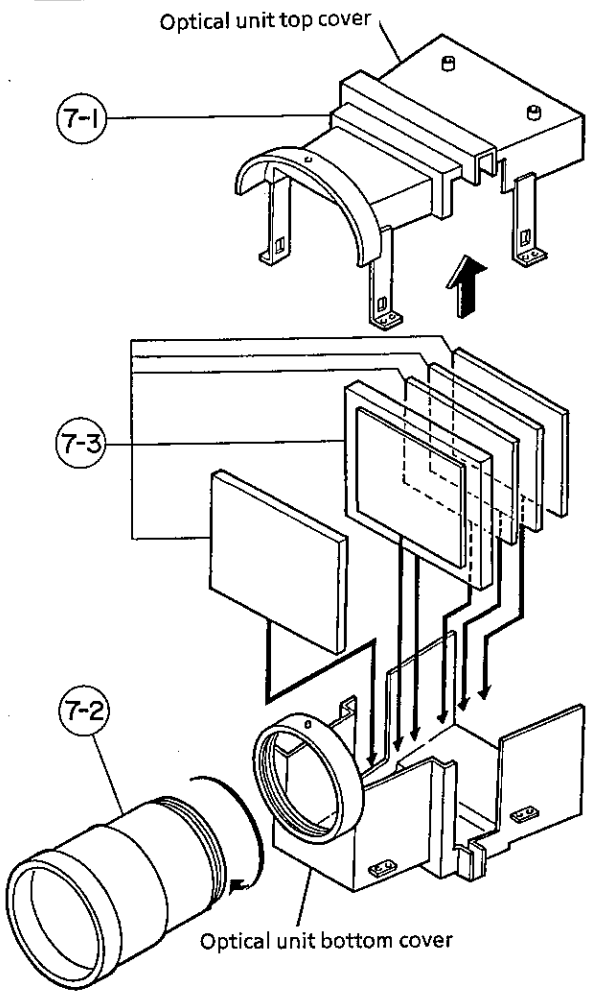
7. Disassembling and reassembling the optical unit

7-1. Pull up the optical unit top cover.
7-2. Turn the projection lens clockwise and remove the lens.
7-3. Pull up the following optical unit parts: Fresnel lens, light-in deflection plate, LCD panel, light-out deflection plate, condenser lens and U/V cut filter.

6



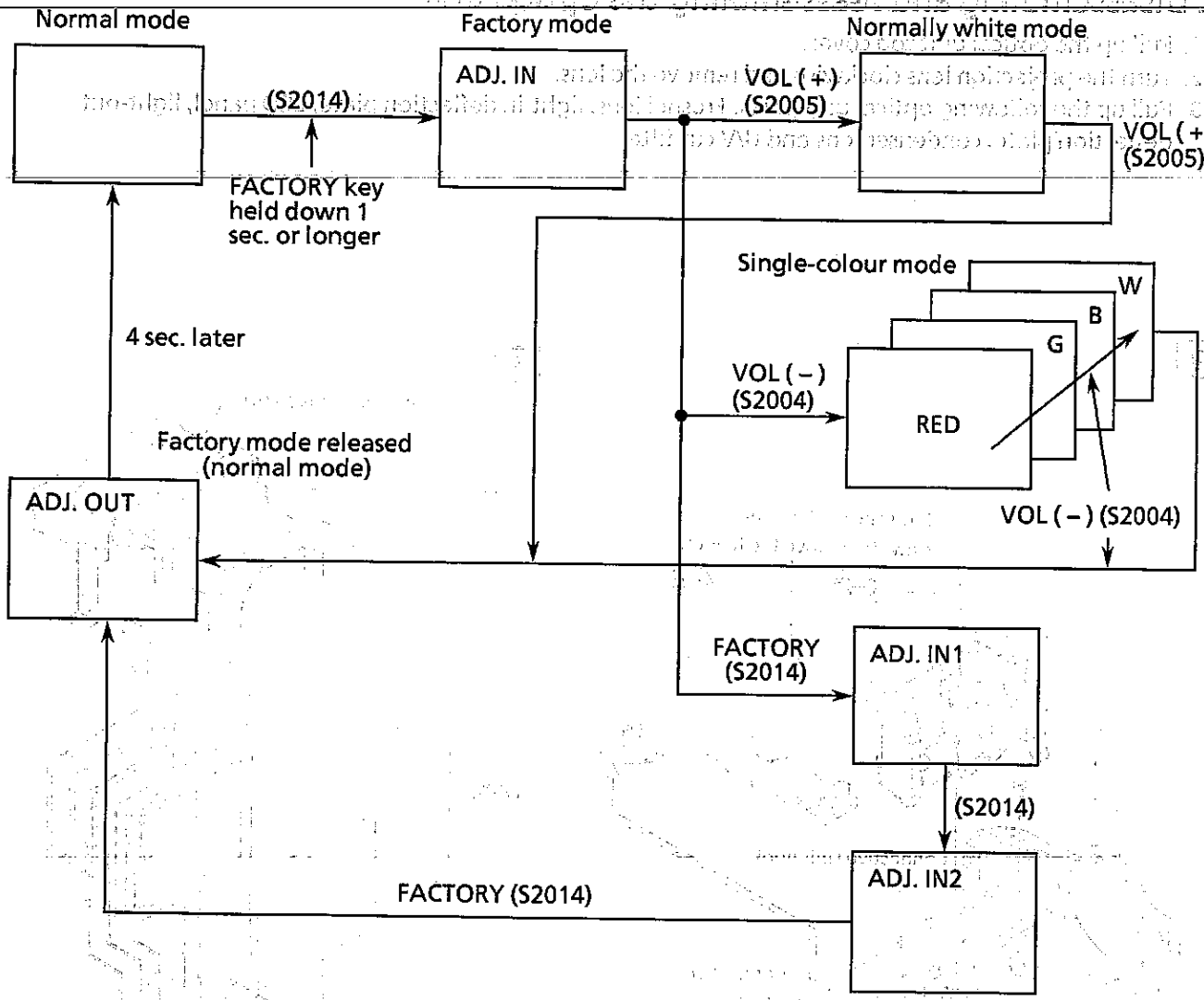
7



FACTORY MODE ADJUSTMENT

FACTORY SWITCH (S2014)

Hold down the FACTORY SWITCH for longer than 1 sec. and the factory mode is called.
In the factory mode, the keys are used to make the following adjustments.



In the normal mode, hold down the FACTORY key for longer than 1 sec. and the factory mode is called and the "ADJ. IN" appears on the screen.
With the "ADJ. IN" being displayed, the VOL (+), VOL (–) and FACTORY keys can be used to bring the modes that are shown above and discussed below.

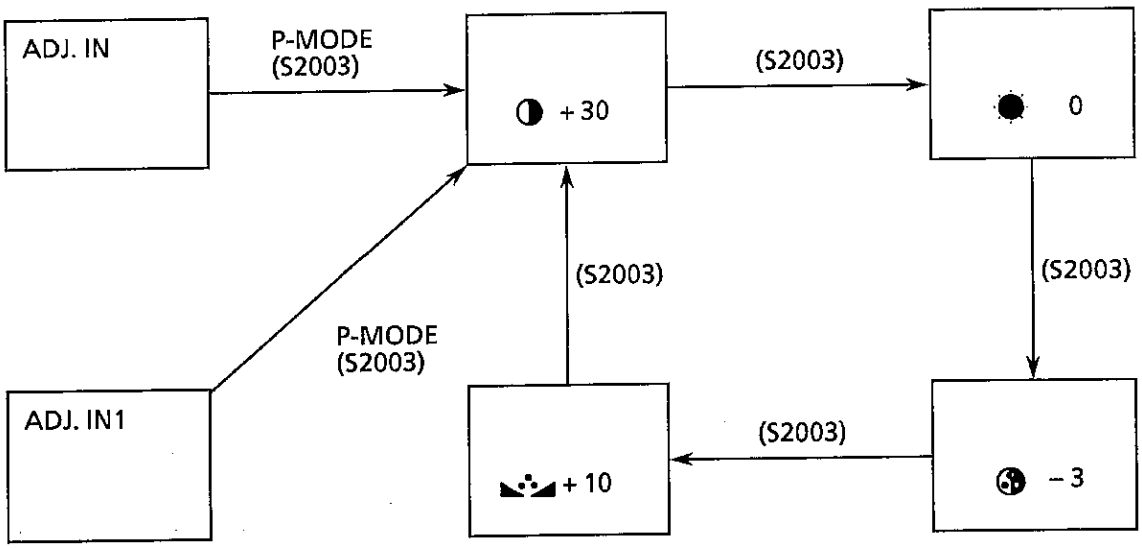
Normally white mode

In this mode, the screen turns normally white. Press the VOL (+) (S2005) key again, and the "ADJ. OUT" first appears on the screen and then the normal mode is called back. In the normally white mode, the VOL (+) (S2005) key alone is effective.

Single-colour mode

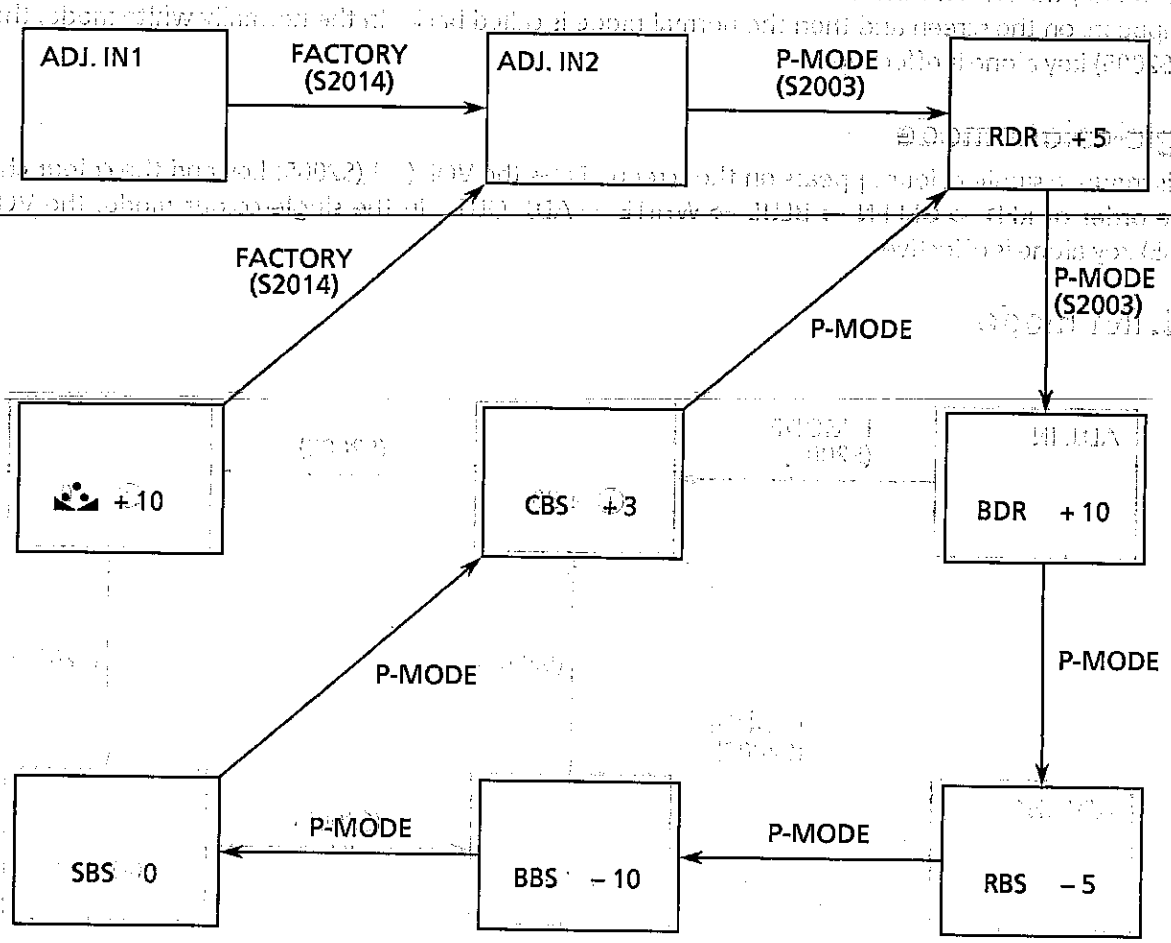
In this mode, a single colour appears on the screen. Press the VOL (−) (S2005) key and the colour changes in the order of RED → GREEN → BLUE → WHITE → ADJ. OUT. In the single-colour mode, the VOL (−) (S2005) key alone is effective.

ADJ. IN1 mode



In the ADJ. IN or ADJ. IN1 mode, press the P-MODE (S2003) key and the video adjustment items are called on the screen. Each time the S2003 key is pressed, the adjustment items change in the order illustrated above.
With any of the adjustment items on the screen, press the FACTORY (S2014) key and the ADJ. IN2 adjustment mode is called on the screen.

ADJ. IN2 mode

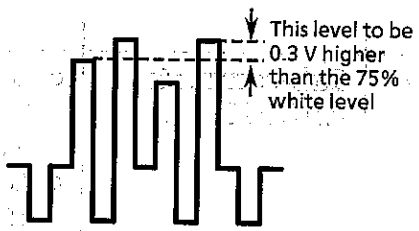
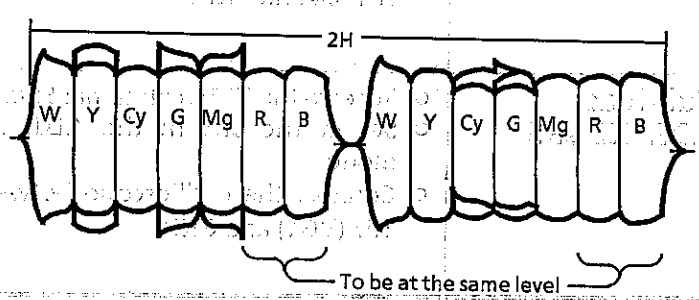


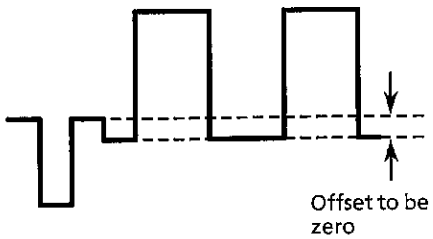
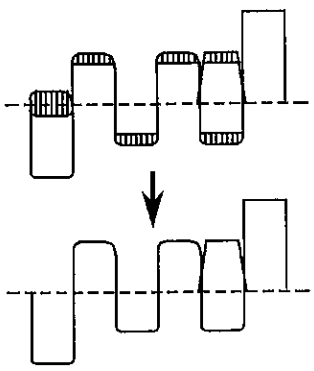
In the ADJ. IN1 mode or with any of the ADJ. IN1 adjustment items on the screen, press the FACTORY (S2014) key and the ADJ. IN2 mode is called on the screen.
In the ADJ. IN2 mode, press the P-MODE (S2003) key and the drive and bias adjustment items change in the order illustrated above.
With any of the adjustment items on the screen, press the FACTORY (S2014) key and the "ADJ. OUT" first appears on the screen and then the normal mode is called back.
With any of the adjustment items on the screen in the ADJ. IN1 or ADJ. IN2 mode, press the SYSTEM (S2010) key and all the adjustment items are displayed on the screen for collective check-up of settings.

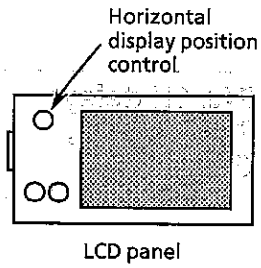
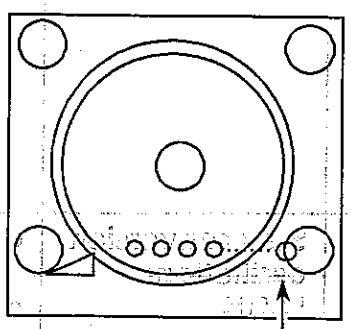
ELECTRICAL ADJUSTMENT

Note: Unless otherwise specified, all the adjustments should be made in the standard conditions.

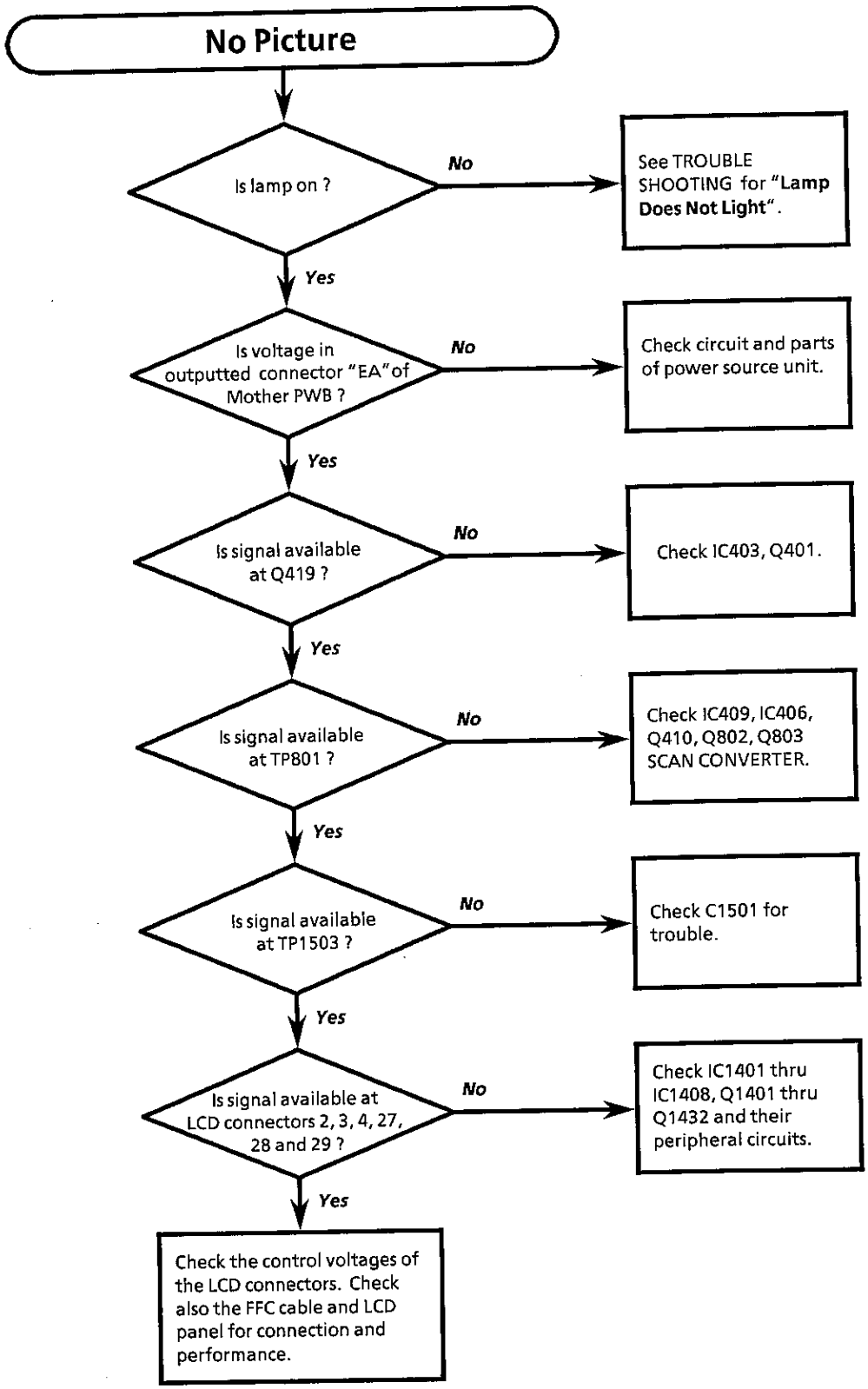
No.	Adjustment position	Adjustment condition	Adjustment method
1	**Microprocessor initialization**	• Be sure to initialize the microprocessor. All the adjustment settings are now initialized to get the unit ready for adjustment.	• Hold down the S2014 key for 1 sec. or longer. → "ADJ. IN" appears on the screen. • Hold down the S2006 key for 1 sec. or longer. → "SET 2" appears on the screen.
2	**AGC (Automatic Gain Control): R1546**	• Receive the NTSC monoscope pattern signal. • Connect the voltmeter between TP1501 and GND.	• Adjust R1546 so that the voltmeter should read 4.0 ± 0.3 V.
3	**Sub-brightness: ADJ. IN1**	• Receive the NTSC colour bar signal. • Select the brightness in the ADJ. IN1 mode. • Connect the oscilloscope between TP1503 and GND.	• Using the DAC + / – key, adjust the signal's pedestal level to DC – 2.2 ± 0.05 V.
4	**Sub-contrast: ADJ. IN1**	• Receive the NTSC colour bar signal. • Select the contrast in the ADJ. IN1 mode. • Connect the oscilloscope between TP1503 and GND.	• Using the DAC + / – key, adjust the signal's white peak level to DC 0.8 ± 0.05 V.
5	**R-drive: ADJ. IN2 RDR**	• Receive the NTSC colour bar signal. • Select the RDR in the ADJ. IN2 mode. • Connect the oscilloscope between TP1502 and GND.	• Using the DAC + / – key, adjust the 100% white level to DC 0.8 ± 0.05 V.
6	**B-drive: ADJ. IN2 BDR**	• Receive the NTSC colour bar signal. • Select the BDR in the ADJ. IN2 mode. • Connect the oscilloscope between TP1504 and GND.	• Using the DAC + / – key, adjust the 100% white level to DC 0.8 ± 0.05 V. • Adjust R1546 so that the 100% white level be DC 0.5 ± 0.05 V.
7	**Sub-bias: ADJ. IN2 SBS**	• Receive the NTSC colour bar Signal. • Select the SBS in the ADJ. IN2 mode. • Connect the oscilloscope between TP7 (VG1) and GND.	• Adjust the white-to-white level of the inverted and non-inverted waves to 1.6 ± 0.05 Vp-p.

Step	Adjustment position	Adjustment condition	Adjustment method
8	**R sub-bias: ADJ. IN2 RBS**	• Receive the NTSC colour bar signal. • Select the RBS In the ADJ. IN2 mode. • Connect the oscilloscope between TP8 (VG1) and GND.	• Using the DAC+/– key, adjust the white-to-white level of the inverted and non-inverted waves to 1.1 ± 0.1 Vp-p.
9	**B sub-bias: ADJ. IN2 BBS**	• Receive the NTSC colour bar signal (Ja-8ch). • Select the BBS in the ADJ. IN2 mode. • Connect the oscilloscope between TP6 (VB1) and GND.	• Using the DAC+/– key, adjust the white-to-white level of the inverted and non-inverted waves to 1.9 ± 0.1 Vp-p.
10	**NTSC tint: ADJ. IN1**	• Receive the NTSC colour bar signal. • Select the tint in the ADJ. IN1 mode. • Connect he oscilloscope between TP808 and GND.	• Using the DAC+/– key, adjust the waveform as shown below.
11	**Colour saturation: ADJ. IN1**	• Receive the NTSC colour bar signal. • Select the colour in the ADJ. IN1 mode. • Connect the oscilloscope between TP803 and GND.	• Using the DAC+/– key, adjust the waveform as shown below. 
12	**Chroma trap: T402**	• Receive the PAL colour bar signal. • Connect the oscilloscope between TP401 and GND.	• Adjust T402 so that the chroma carrier be minimum.
13	**Chroma trap: T401**	• Receive the SECAM colour bar signal. • Connect the oscilloscope between TP401 and GND.	• Adjust T401 so that the chroma carrier be minimum.
14	**SECAM bell filter: T805**	• Receive the SECAM colour bar signal. • Connect the oscilloscope between TP806 and GND.	• Adjust T805 so that the RB (1) and RB (2) in the 2H period should have the same amplitude. See the figure below. 

Step	Adjustment position	Adjustment condition	Adjustment method
15	**SECAM ID: T804**	• Receive the SECAM colour bar signal. • Connect the oscilloscope between TP805 and GND.	• Adjust T804 so that the DC level be maximum.
16	**SECAM B-Y: T801**	• Receive the SECAM colour bar signal. • Connect the oscilloscope between TP803 and GND.	• Adjust T801 so that the offset be zero. See the figure below.
17	**SECAM R-Y: T802**	• Receive the SECAM colour bar signal. • Connect the oscilloscope between TP804 and GND.	• Adjust T804 so that the offset be zero. See the figure below. 
18	**PAL 1H delay: Phase; T803, Gain; R859**	• Receive the PAL colour bar signal (E-12CH). • Connect the oscilloscope between TP808 and GND.	• Adjust R859 and T805 so that the hatched portions should change as shown below.  After adjustment
19	**Scan conversion oscillation: L4101**	• Make a short-circuit between TP4101 and GND. • Connect the frequency counter to TP4102.	• Adjust L4101 so that the frequency counter should read 15.625 ± 0.01 kHz.

Step	Adjustment position	Adjustment condition	Adjustment method
20	**PAL Y level: R4162**	• Receive the PAL colour bar signal. • Connect the oscilloscope between TP801 and GND.	• Adjust R4162 so that the pedestal-to-white level be 1.0 +0.05/ – 0 Vp-p.
21	**Counter-bias (fine adjustment): R1479**	• Receive the NTSC monoscope pattern signal.	• Adjust R1479 so that the contrast be sharpest.
22	**White balance (fine adjustment): R1667 (B), R1673 (R)**	• Receive the NTSC monoscope pattern signal.	• Watch the screen to check the white balance. If out of balance, finely adjust R1667 and R1673. For final adjustment, receive the Ja-4ch signal and check the flesh colour.
23	**NTSC horizontal display position**	• Receive the NTSC monoscope pattern signal.	• Turn the horizontal display position control on the LCD panel so that the image be centered. 
24	**PAL horizontal display position**	• Receive the PAL monoscope pattern signal.	• Adjust R1605 so that the image be centered.
25	**Sign position: T2001**	• Receive the NTSC monoscope pattern signal. • Holding down the S-UP switch, turn the sign position adjustment coil (T2001).	

TROUBLE SHOOTING TABLE


No Picture
Is lamp on ?
No
See TROUBLE SHOOTING for "Lamp Does Not Light".
Yes
Is voltage in outputted connector "EA" of Mother PWB ?
No
Check circuit and parts of power source unit.
Yes
Is signal available at Q419 ?
No
Check IC403, Q401.
Yes
Is signal available at TP801 ?
No
Check IC409, IC406, Q410, Q802, Q803 SCAN CONVERTER.
Yes
Is signal available at TP1503 ?
No
Check C1501 for trouble.
Yes
Is signal available at LCD connectors 2, 3, 4, 27, 28 and 29 ?
No
Check IC1401 thru IC1408, Q1401 thru Q1432 and their peripheral circuits.
Yes
Check the control voltages of the LCD connectors. Check also the FFC cable and LCD panel for connection and performance.

TROUBLE SHOOTING TABLE (Continued)

Colour system control: PAL mode.

No colour.

No colour or abnormal colour ?

Yes

Is colour abnormal ?

No

Is voltage normal at pin (15), (31) and (38) of IC801.

Normal voltage: **See system control table.**

Normal

Check IC801 and bias control circuit.

Check X802, C825, R846, R859 and DL801.

Check IC801.

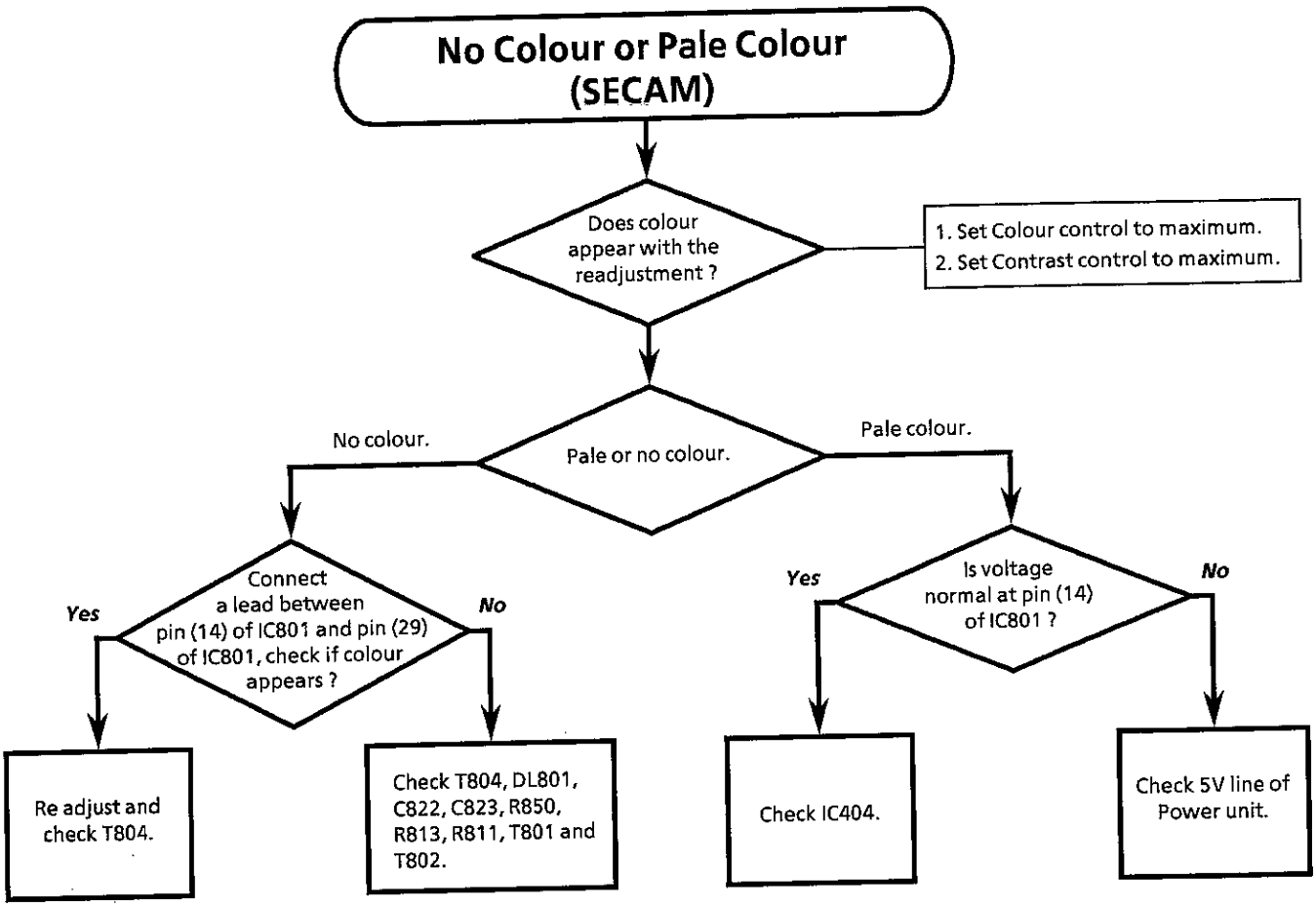
Colour System Control of IC801

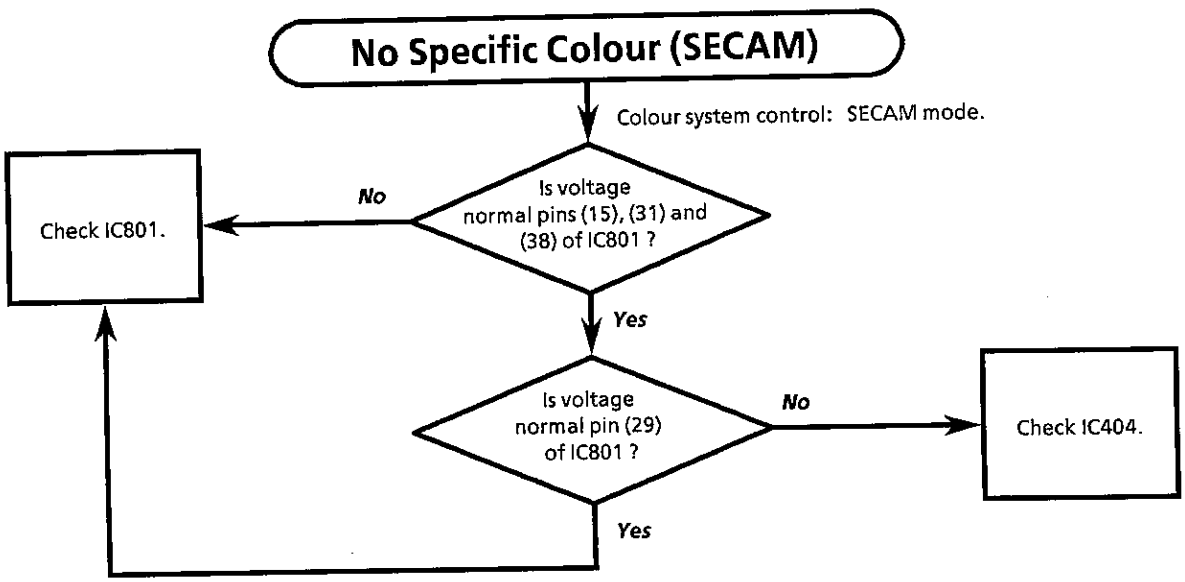
AUTO MODE	SW-1 Pin (31)	SW-2 Pin (38)	SW-3 Pin (15)
PAL	H	H	H
SECAM	H	M	M
B/W	L	M/L	L

FORCED MODE	SW-1 Pin (31)	SW-2 Pin (38)	SW-3 Pin (15)
PAL	H	H	H
SECAM	H	M	M

H: Over 3V M: 1.5V L: 0V

TROUBLE SHOOTING TABLE (Continued)

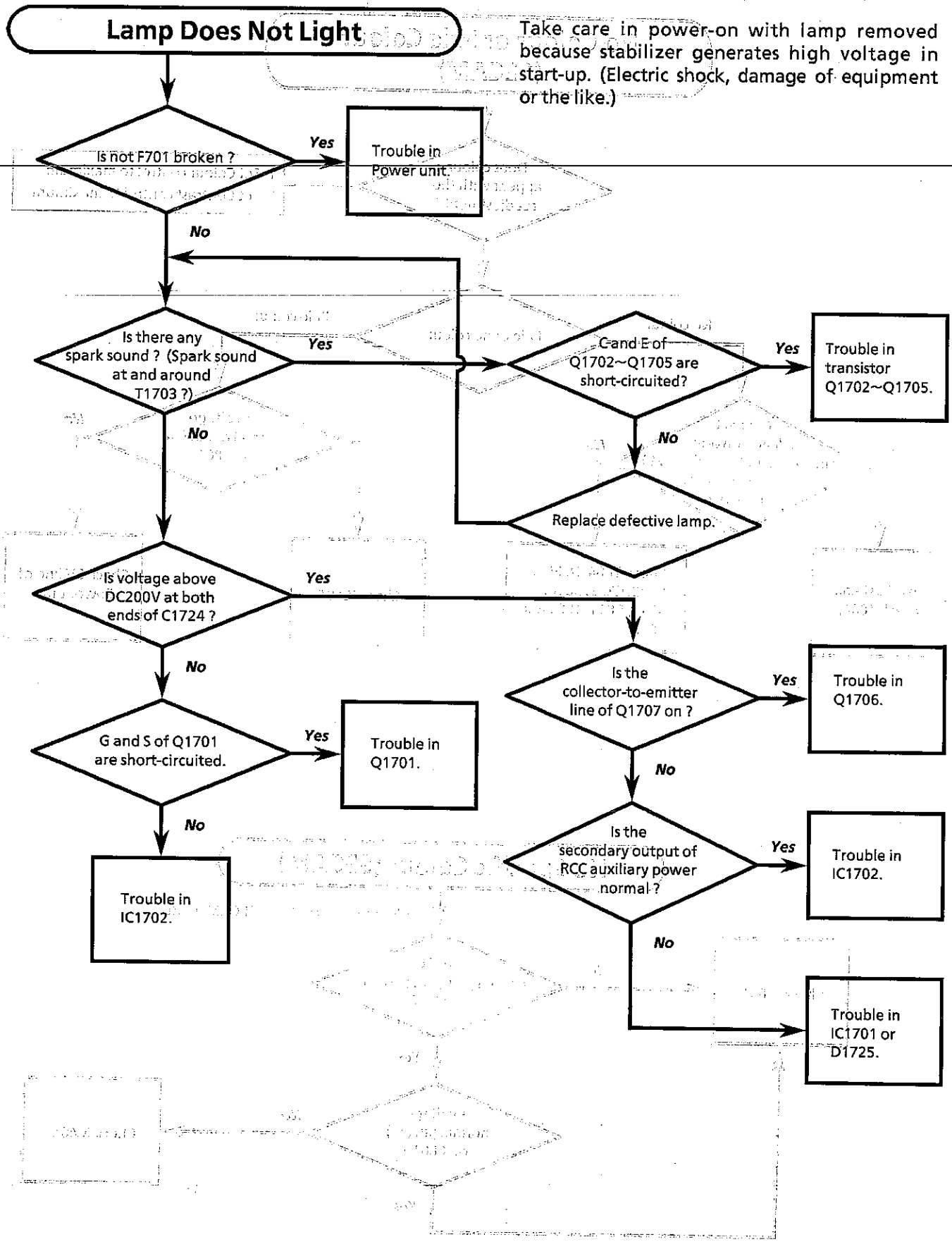

No Colour or Pale Colour (SECAM)
Does colour appear with the readjustment ?
1. Set Colour control to maximum.
2. Set Contrast control to maximum.
Pale or no colour.
No colour.
Pale colour.
Connect a lead between pin (14) of IC801 and pin (29) of IC801, check if colour appears ?
Yes
No
Re adjust and check T804.
Check T804, DL801, C822, C823, R850, R813, R811, T801 and T802.
Is voltage normal at pin (14) of IC801 ?
Yes
No
Check IC404.
Check 5V line of Power unit.



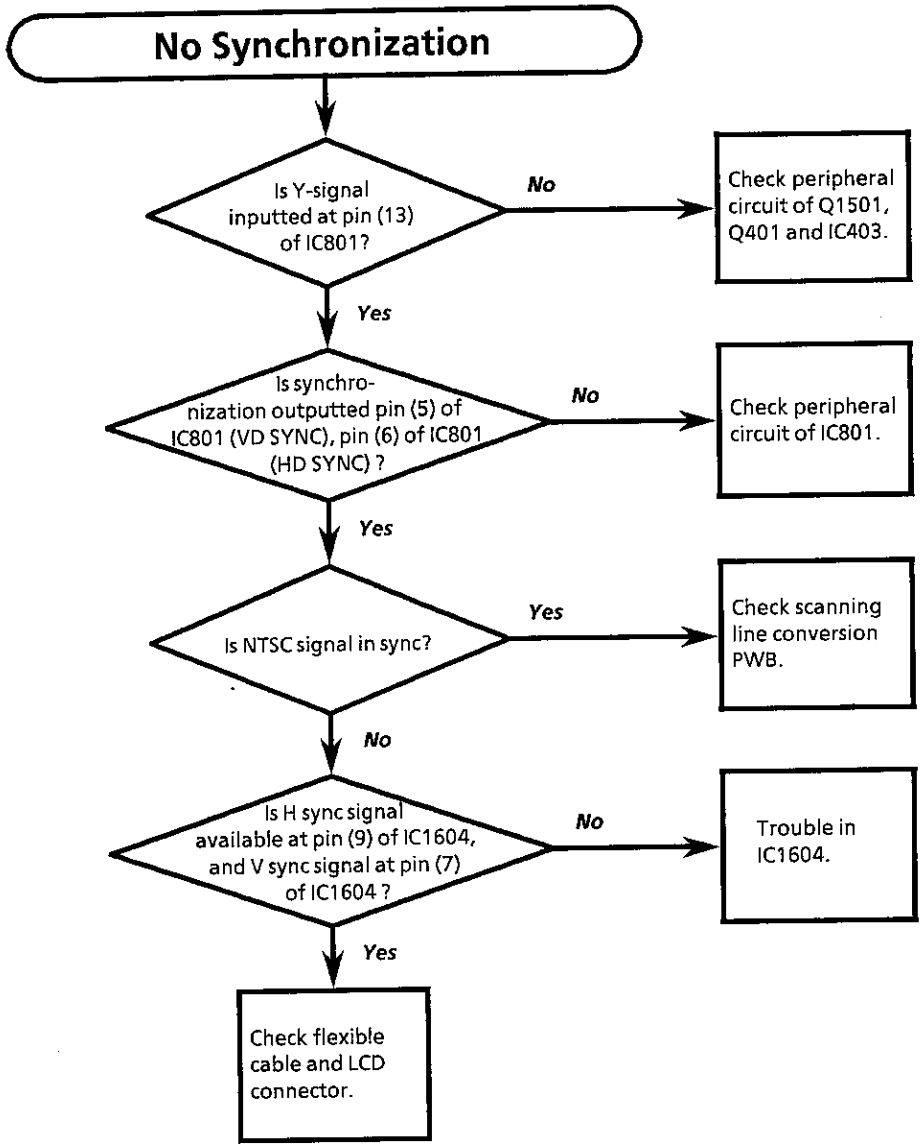
TROUBLE SHOOTING TABLE (Continued)

Lamp Does Not Light

Take care in power-on with lamp removed because stabilizer generates high voltage in start-up. (Electric shock, damage of equipment or the like.)



TROUBLE SHOOTING TABLE (Continued)


No Synchronization
Is Y-signal inputted at pin (13) of IC801?
No
Check peripheral circuit of Q1501, Q401 and IC403.
Yes
Is synchro-nization outputted pin (5) of IC801 (VD SYNC), pin (6) of IC801 (HD SYNC) ?
No
Check peripheral circuit of IC801.
Yes
Is NTSC signal in sync?
Yes
Check scanning line conversion PWB.
No
Is H sync signal available at pin (9) of IC1604, and V sync signal at pin (7) of IC1604 ?
No
Trouble in IC1604.
Yes
Check flexible cable and LCD connector.

HINWEISE FÜR DEN WARTUNGSTECHNIKER

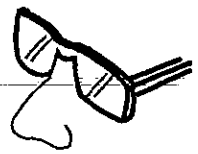
VORSICHTSMASSNAHMEN GEGEN UV-STRAHLUNG

Die Lichtquelle (Halogenlampe)im LCD-Projektor erzeugt geringe Anteile von UV-Strahlung.

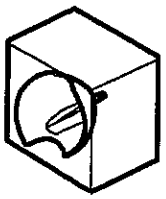
DIREKTEN AUGEN-UND HAUTKONTAKT VERMEIDEN.

Folgende Sicherheitshinweise sind zu befolgen:

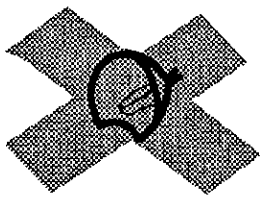
1. Bei der Wartung des Geräts muß bei eingeschalteter Lampe (ON)eine Sonnenschutzbrille getragen werden.



2. Die Lampe darf nicht außerhalb des Lampengehäuses verwendet werden.



3. Bei entfernten oberen Deckel nicht länger als 2 Stunden betreiben.



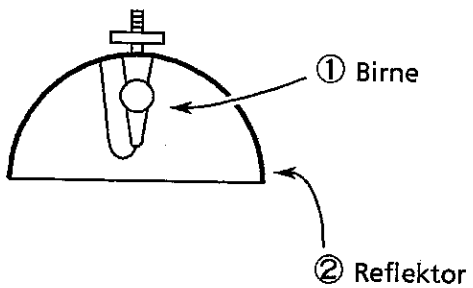
Vorsichtsmaßnahmen bezüglich UV-Strahlung und Mitteldrucklampen

1. Vor dem Auswechseln der Lampe unbedingt den Netzstecker ziehen.
2. Das Gerät vor dem Durchführen von Wartungsarbeiten eine Stunde lang abkühlen lassen.
3. Nur gegen eine Lampe des gleichen Typs auswechseln fassen. Typ **CLMPF0016DE06**,65V/120W.
4. Da die Lampe eine geringe UV-Strahlung aufweist,sollte direkter Blickkontakt vermieden werden.
5. Die Mitteldrucklampe weist ein gewisses Explosionsrisiko auf.Die nachstehenden Einbauanweisungen unbedingt beachten und die Lampe vorsichtig handhaben.

■ Auswechseln der Lampe

Hinweis:

Da die Lampe während des Betriebs extrem heiß wird,sollte das Auswechseln erst eine Stunde nach dem Ausschalten stattfinden(Abkühlzeit).
Beim Anbringen der neuen Lampe unbedingt darauf achten,daß die Birne nicht mit bloßen Fingern berührt wird.Die Lampe nur am Reflektor ② festhalten.
[Nur eine Originalbirne verwenden.]



GEFAHR ! — Die Spannungsversorgung niemals ohne eingebaute Lampe einschalten,um elektrische Schläge und Schäden des Gerätes zu vermeiden. Der Stabilisator erzeugt beim Einschalten hohe Spannungen.

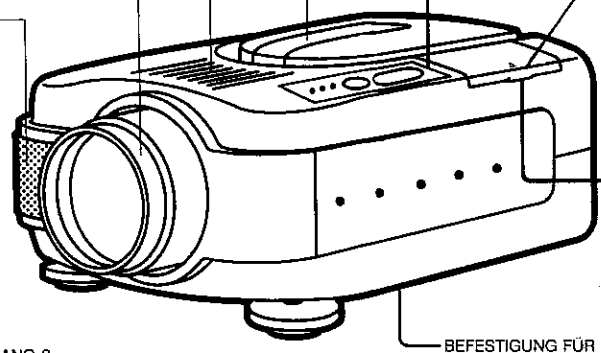
Lage der Bedienelemente

Hinweis zur Temperatur-Anzeigefunktion:

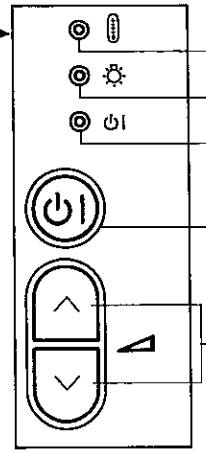
ANZEIGE AUF DER BILDWAND

TEMP.

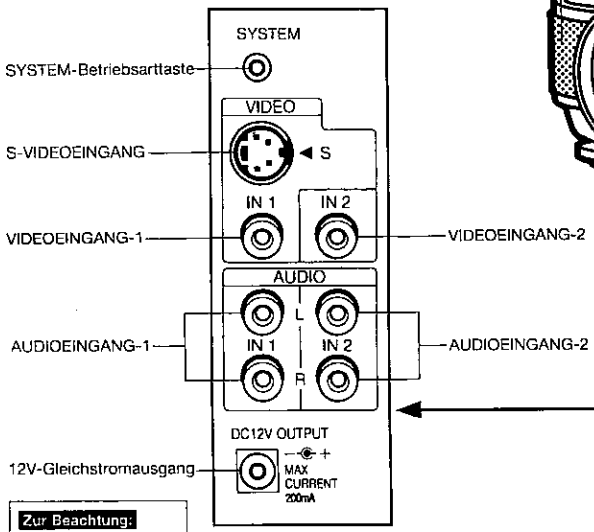
- Wenn der Projektor aufgrund eines Einstellungsproblems oder eines verschmutzten Filters überhitzt, blinkt "TEMP" im Oberteil des Bildes. Wenn die Temperatur weiterhin ansteigt, wird die Temperatur-Überwachungsanzeige eingeschaltet und das Gerät schaltet sich aus. Siehe "Warnlampen", wenn die Warnung im Bild erscheint.
- Der Kühlventilator regelt die interne Temperatur; seine Leistung wird automatisch geregelt. Das Ventilatorgeräusch kann sich während des Betriebs aufgrund der Ventilatorgeschwindigkeit ändern.



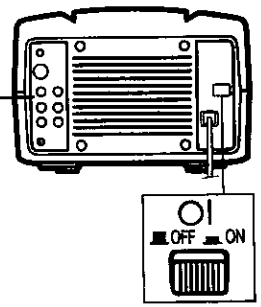
Oberseite des Projektors



Rückseite



Zur Beachtung:
Keine Geräte mit einem maximalen Nennstrom von über 200 mA am Projektor anschließen.

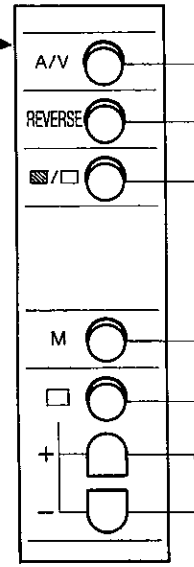


Hauptnetzschalter

Stativ
Ein Stativ wählen, daß stabil genug ist, um das gesamte Gewicht der Einheit (20 kg) zu tragen.

Vorsicht:
- Kein kleines Stativ verwenden, da ein solches nicht stabil genug zum Tragen der Einheit ist.
- Wenden Sie sich bei Fragen an den SHARP-Händler oder den SHARP-Kundendienst.

Bedienelemente unter der Abdeckung



Aufbau des Projektors

Vorsichtsmaßnahmen bei der Installation

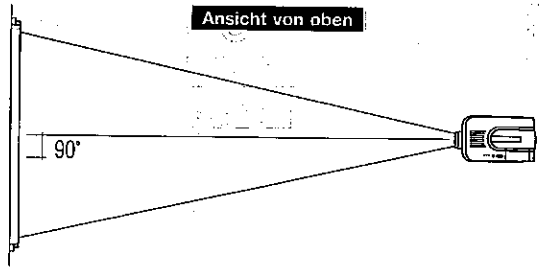
Den Projektor nicht an Orten mit hoher Luftfeuchtigkeit oder mit viel Staub aufstellen. Orte vermeiden, an denen er Zigarettenrauch und Ruß ausgesetzt ist. Wenn das Objektiv, der Spiegel oder andere optische Bauteile verschmutzt sind, kann das Bild verschwommen oder dunkel sein und das Betrachten erschweren.

- Den Projektor nicht übermäßiger Hitze oder Kälte aussetzen.
  Betriebstemperatur: 5°C~40°C
  Lagertemperatur: −20°C~55°C

Beispiel für die Aufstellung

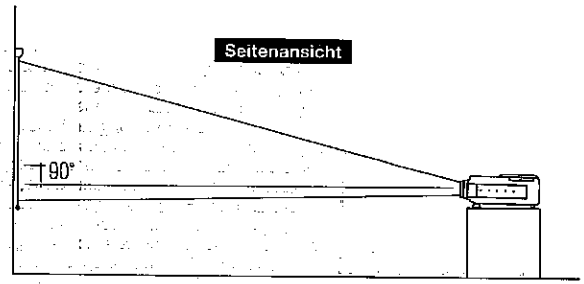
■ Die Bildwand so aufstellen, daß sie nicht direktem Sonnenlicht oder der Zimmerbeleuchtung ausgesetzt ist. Direkt auf die Bildwand fallendes Licht macht die Bildwand weiß und erschwert das Betrachten. Die Vorhänge schließen, wenn die Bildwand in einem hellen Raum verwendet wird.
■ Den Projektor mit einem Winkel von 90° zur Bildwand aufstellen, um eine optimale Bildqualität zu erzielen.

Ansicht von oben



• Normale Bildqualität

Seitenansicht



Wenn die Bildwand und der Projektor nicht richtig aufgestellt sind, kann das Bild verzerrt und die Betrachtung erschwert sein.

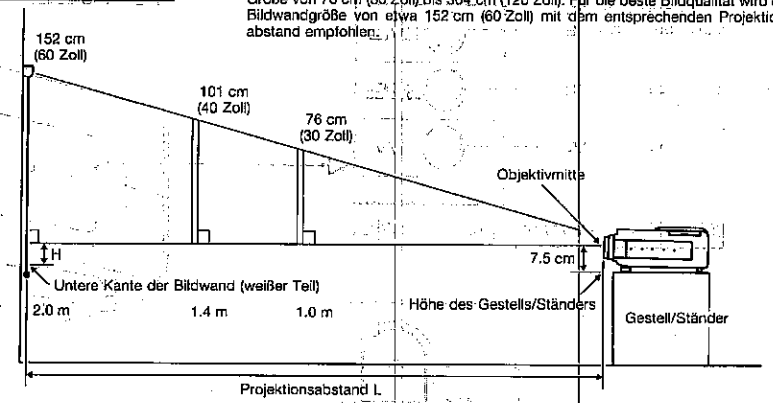
■ Dieser Projektor ist mit einem Objektiv mit fester Brennweite ausgestattet.
Siehe die folgende Abbildung zur Bestimmung der Bildgröße und des Projektionsabstandes.
■ Das Bild kann eingestellt werden, wenn der Projektor in einem Abstand von 1 bis 4 Meter von der Bildwand aufgestellt ist. Den Projektor innerhalb dieses Bereiches aufstellen.

Abhängigkeit zwischen Projektionsabstand und Bildgröße

Bildgröße (diagonal)	Projektionsabstand L	Abstand zwischen Objektivmitte und der unteren Kante der Bildwand (H)
152 cm (60 Zoll)	2,0 m	ca. 23 cm
101 cm (40 Zoll)	1,4 m	ca. 16 cm
76 cm (30 Zoll)	1,0 m	ca. 12 cm

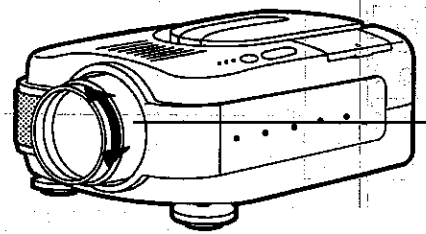
*Die Parameter zum Scharfstellen erlauben eine Projektion auf die Bildwand in der Größe von 76 cm (30 Zoll) bis 304 cm (120 Zoll). Für die beste Bildqualität wird eine Bildwandgröße von etwa 152 cm (60 Zoll) mit dem entsprechenden Projektionsabstand empfohlen.

Höhe des Projektors



■ Nach dem Aufbau des Projektors die Schärfe wie folgt einstellen.

Scharfstellung



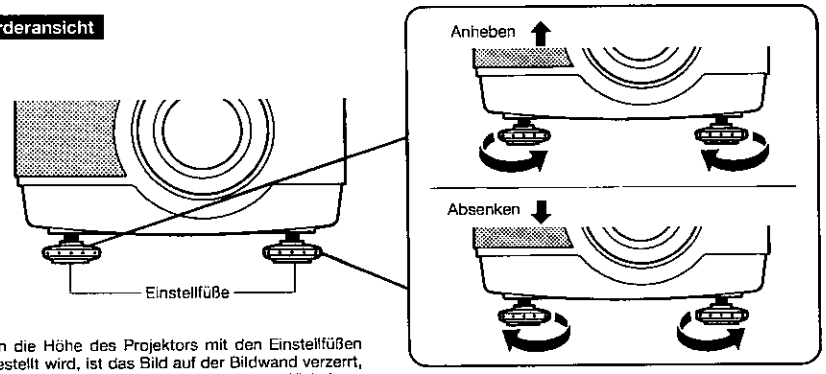
■ Das Objektiv so einstellen, daß das projizierte Bild so scharf wie möglich ist.
■ Siehe zum Einschalten des Gerätes.

Zur Scharfstellung des Bildes den Scharfstellring drehen.

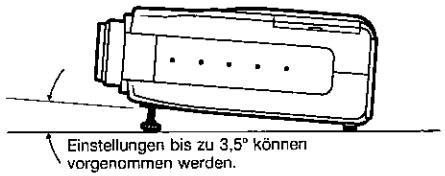
Einstellung von Horizontale und Höhe

■ Die Einstellfüße auf der Unterseite des Projektors zum Einstellen der Höhe verwenden.

Vorderansicht



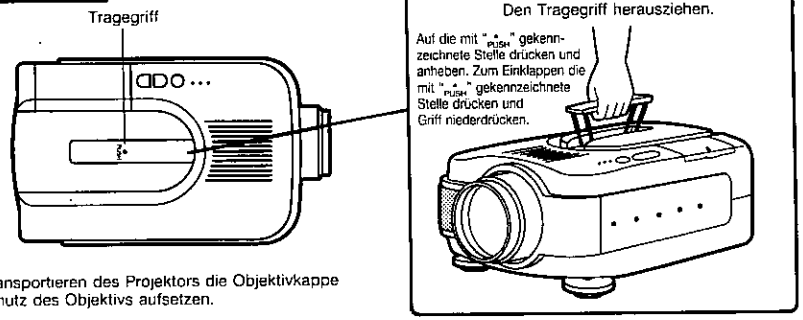
Wenn die Höhe des Projektors mit den Einstellfüßen eingestellt wird, ist das Bild auf der Bildwand verzerrt, da der Projektor nicht mehr im rechten Winkel zur Bildwand steht.



Transport des Projektors

■ Den Tragegriff zum Transportieren des Projektors verwenden.

Ansicht von oben


Tragegriff
Den Tragegriff herausziehen.
Auf die mit "PUSH" gekennzeichnete Stelle drücken und anheben. Zum Einklappen die mit "PUSH" gekennzeichnete Stelle drücken und Griff niederdrücken.

Zum Transportieren des Projektors die Objektivkappe zum Schutz des Objektivs aufsetzen.

Anschluß des Projektors

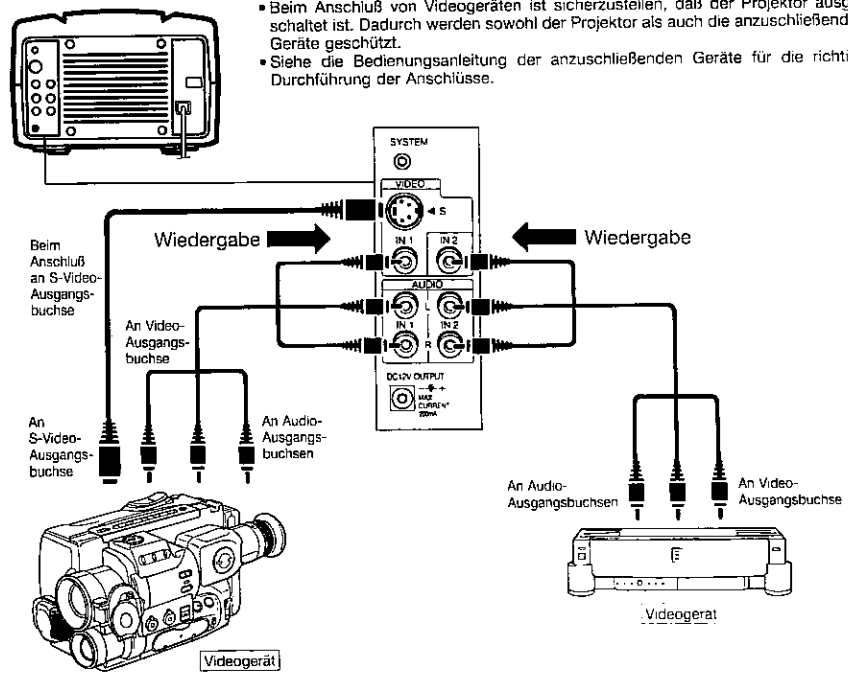
SYSTEM 1

Anschluß des Projektors an Videogeräte für die Wiedergabe.

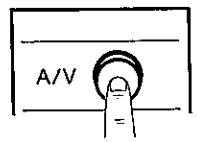
Rückseite

Hinweise:

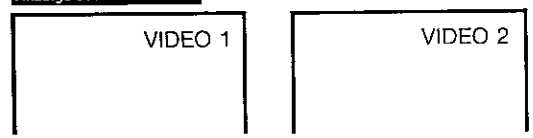
- Beim Anschluß von Videogeräten ist sicherzustellen, daß der Projektor ausgeschaltet ist. Dadurch werden sowohl der Projektor als auch die anzuschließenden Geräte geschützt.
- Siehe die Bedienungsanleitung der anzuschließenden Geräte für die richtige Durchführung der Anschlüsse.



Mit der AV Wahltaste VIDEO 1 oder VIDEO 2 einstellen.



Anzeige auf der Bildwand



Funktion für Prioritätseingang des S-Videoanschlusses.
Der Videoeingangsanschluß 1 und der S-Videoeingangsanschluß an diesem Projektor sind so eingestellt, daß der S-Videoeingang Vorrang hat.

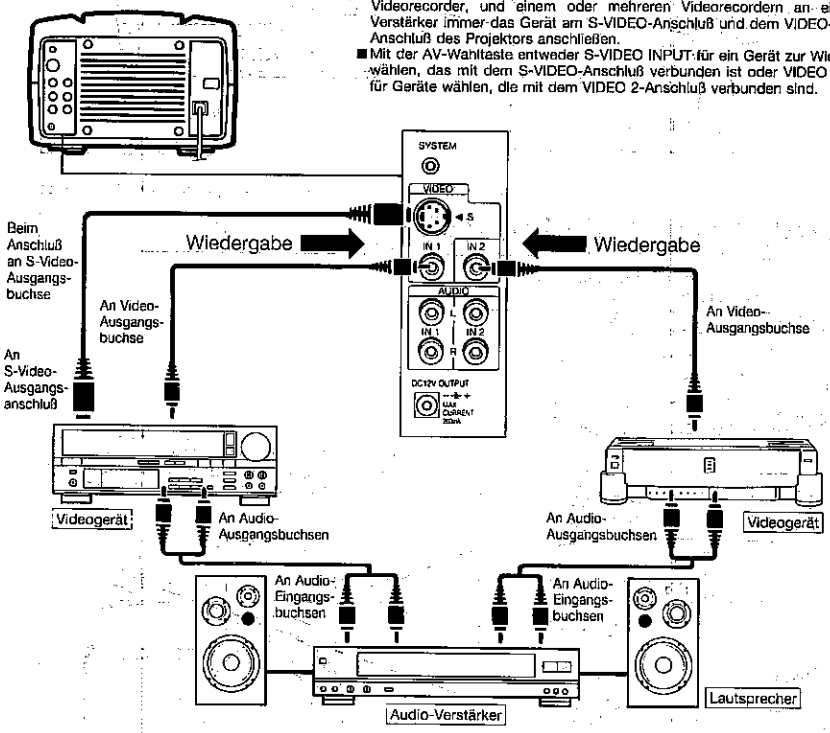
- Wenn Videogeräte an beiden Anschlüssen angeschlossen sind, wird das Videosignal vom S-Videoeingangsanschluß auf dem Bildschirm angezeigt.
- Zur Darstellung des Videosignals von Videogeräten, die am Videoeingangsanschluß 1 angeschlossen sind, wird der Stecker vom S-Videoeingangsanschluß abgetrennt.

SYSTEM 2

Anschluß des Projektors an Video- und Audiogeräte für die Wiedergabe. (Mit einem Audio-Verstärkeranschluß.)

Rückseite

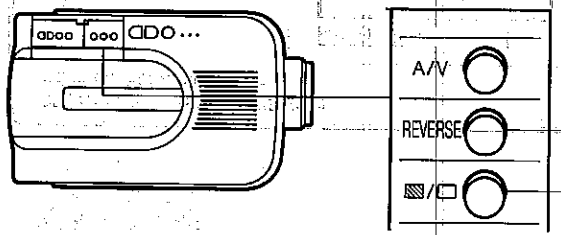
- Beim Anschluß von Geräten mit einem S-Videoausgang, z.B. einem S-VHS-Videorecorder, und einem oder mehreren Videorecordern an einen AV-Verstärker immer das Gerät am S-VIDEO-Anschluß und dem VIDEO-2 JACK-Anschluß des Projektors anschließen.
- Mit der AV-Wahltaste entweder S-VIDEO INPUT für ein Gerät zur Wiedergabe wählen, das mit dem S-VIDEO-Anschluß verbunden ist oder VIDEO INPUT 2 für Geräte wählen, die mit dem VIDEO 2-Anschluß verbunden sind.



Sonstige Funktionen

- Bei eingeschalteter Blaudämpfungs-Funktion wird die Anzeige auf der Bildwand auf blau geschaltet, wenn kein Videosignal in den Projektor eingegeben wird.
- Den Blaudämpfungs-Schalter zum Ausschalten der Blaudämpfungs-Funktion noch einmal drücken.

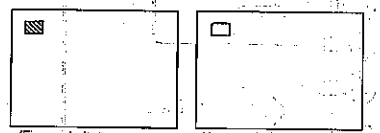
Bedienelemente hinter der Abdeckung



1 Blaudämpfungs-Funktion

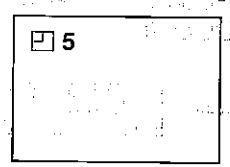
- Beim Drücken des Blaudämpfungs-Schalters wird für einige Sekunden die folgende Anzeige auf der Bildwand angezeigt.

Anzeige auf der Bildwand



(Eingeschaltete Blaudämpfungs-Funktion) (Ausgeschaltete Blaudämpfungs-Funktion)

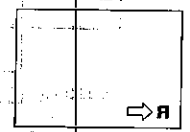
- Bei Einstellung des Blaudämpfungs-Schalters auf die ▧-Position (ON) wird der Projektor auf Blauwiedergabe umgeschaltet, wenn kein Signal oder Rauschen eingegeben wird. (Wenn die Blaudämpfungs-Funktion länger als 15 Minuten eingeschaltet ist, wird die automatische Abschaltfunktion aktiviert und das Gerät automatisch ausgeschaltet. Fünf Minuten vor dem Ausschalten wird die verbleibende Zeit (in Minuten) in Abständen von einer Minute in der linken oberen Ecke der Bildwand angezeigt.)



2 Rückprojektion

- Nach dem Drücken der Rückprojektions-Taste auf die Rückprojektions-Betriebsart wird für einige Sekunden die folgende Anzeige auf der Bildwand angezeigt.

Anzeige auf der Bildwand

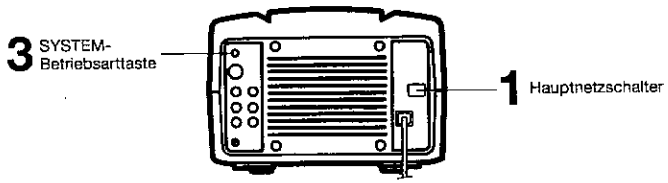


(Eingeschaltete Rückprojektion-Funktion)

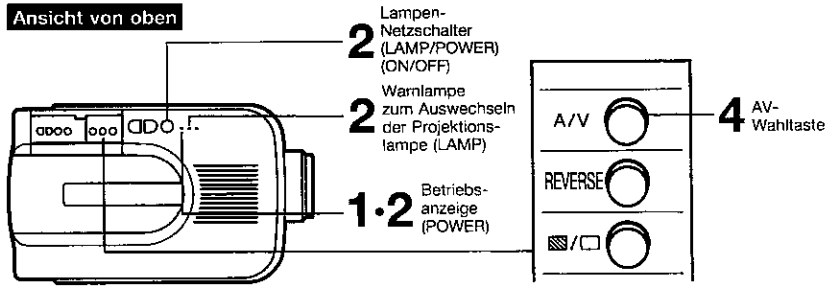
- Wenn ein Spiegelbild oder ein umgekehrtes Bild für eine Rückprojektion notwendig ist, kann das Bild mit der Rückprojektions-Taste umgeschaltet werden. Die Rückprojektions-Taste drücken. Das auf der Bildwand wiedergegebene Bild wird als Spiegelbild des Videoeingangssignals wiedergegeben. Die Taste erneut drücken. Jetzt wird das Bild wieder normal wiedergegeben.

Verwendung des Projektors

Ansicht von hinten



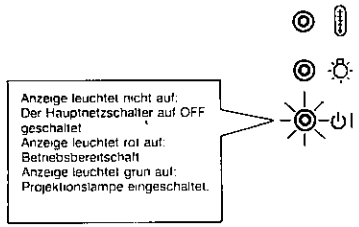
Ansicht von oben



1 Den Hauptnetzschalter einschalten.

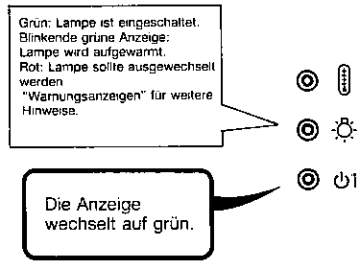
Den Hauptnetzschalter auf ON stellen.

- Bei der erstmaligen Verwendung des Projektors oder wenn die Betriebsanzeige nicht aufleuchtet, wird der Hauptnetzschalter auf ON gestellt. (Anzeige leuchtet rot auf.)
- Die Betriebsanzeige erlöscht, wenn der Hauptnetzschalter auf OFF geschaltet wird.



2 Einschalten der Lampe

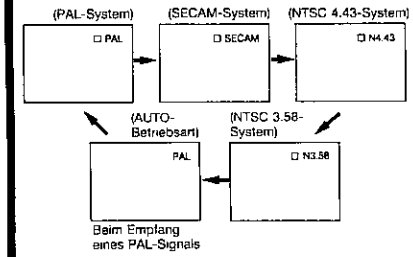
Den Lampen-Netzschalter (ON/OFF) drücken.


Grün: Lampe ist eingeschaltet.
Blinkende grüne Anzeige:
Lampe wird aufgewärmt.
Rot: Lampe sollte ausgewechselt werden
"Warnungsanzeigen" für weitere Hinweise.
Die Anzeige wechselt auf grün.

3 Systemwechsel

Die SYSTEM-Taste drücken

- Beim Drücken der Taste wird das gewählte Fernsehsystem in der oberen rechten Ecke der Bildwand für einige Sekunden angezeigt.



*In der automatischen Betriebsart wird "PAL", "SECAM", "NTSC 4.43" oder "NTSC 3.58" für einige Sekunden auf der Bildwand angezeigt, wenn die Betriebsart automatisch geändert wird.

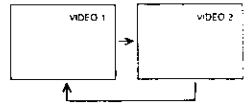
4 A/V-Wahl

Die A/V-Wahltaste drücken.

- **A/V-Taste auf dem Bedienfeld des Projektors**
  Beim Drücken der Taste ändert sich die Anzeige wie folgt:

VIDEO 1 ⟶ VIDEO 2

Die Anzeige auf der Bildwand ändert sich wie in der folgenden Abbildung.



Hinweis:

- Selbst wenn das Gerät mit der POWER-Taste ausgeschaltet wird, arbeitet der Kühlventilator so lange, bis die interne Temperatur des Projektors abgekühlt ist (ca. 90 Sekunden). Nicht das Netzkabel abtrennen oder den Netzschalter auf der Rückseite ausschalten, bis der Ventilator seinen Betrieb einstellt. Ein Nichtbefolgen dieses Hinweises kann die Lebensdauer der Lampe und des LCD-Bildschirms verringern.
- Wenn der Projektor sofort nach dem Ausschalten wieder eingeschaltet wird, kann bis zum Einschalten der Lampe eine kurze Zeit vergehen. (Während dieser Zeit blinkt die Betriebsanzeige für die Projektionslampe grün.)

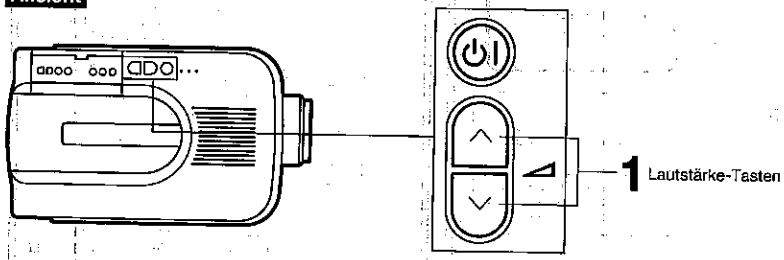
Hinweise:

- Dieser Projektor ist mit drei Videoeingangs-Systemen ausgestattet: S-Video, Video-1 und Video-2.
- Zur Wahl zwischen diesen Systemen die A/V-Wahltaste zur Wahl des Eingangs von den VIDEO-1-(S-VIDEO hat Vorrang) oder VIDEO-2-Buchsen verwenden.

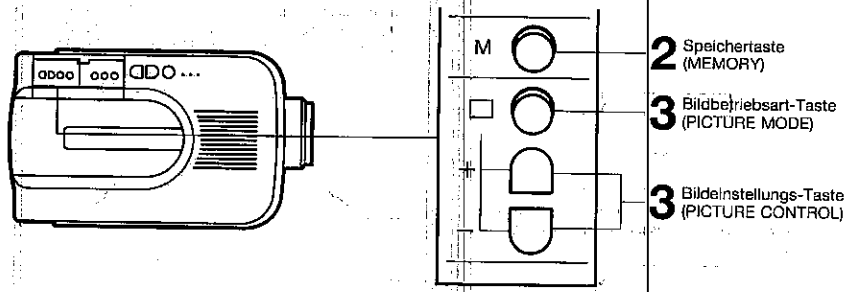
Bild- und Toneinstellungen

■ Das Bild dieses Projektors ist ab Werk auf Standard-Wiedergabe eingestellt. Mit den VIDEO ADJUST-Tasten kann das Bild nach Wunsch eingestellt werden.
■ Die Einstellungen mit den Tasten werden gespeichert.

Ansicht

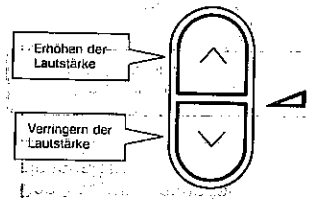


Bedienelemente hinter der Abdeckung

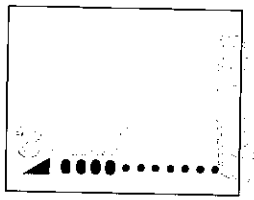


1 Einstellung der Lautstärke

Die Lautstärke-Taste drücken.



Anzeige auf der Bildwand



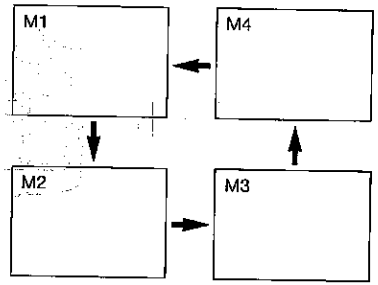
Die Anzahl der angezeigten Punkte (0–16) verringert oder erhöht sich je nach Einstellung der Lautstärke.

2 Speichern von Bildeinstellungen

Die Speichertaste drücken.

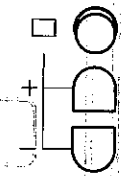
- Die MEMORY-Taste zur Wahl der gewünschten Bildschirmeinstellung drücken. Jede der vier Speicherpositionen kann nach Wunsch eingestellt werden.
- Wenn die MEMORY-Taste während der Anzeige der Einstellungen auf dem Bildschirm gedrückt wird, ändert sich die Anzeige folgendermaßen.

Anzeige auf der Bildwand

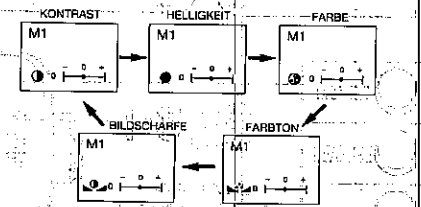


3 Bildeinstellungen

Die Bildbetriebsart- und Bildeinstellungs-Tasten zur gewünschten Einstellung verwenden.



Beim Drücken der Bildbetriebsart-Taste ändert sich die Bild-Betriebsart wie folgt.
(M1 zeigt die Speichernummer an.)

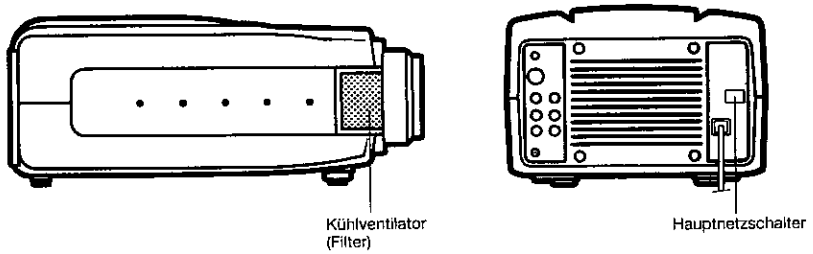


- Die einzustellende Betriebsart wählen und mit den Bildeinstellungs-Tasten die Einstellungen vornehmen.
  * Die Betriebsarten werden für einige Sekunden auf der Bildwand angezeigt. Die Einstellungen müssen während der Anzeige auf der Bildwand vorgenommen werden.

Die Farbton-Einstellung kann nur bei einem NTSC-Signal durchgeführt werden.

Reinigung des Luftfilters

■Der Filter sollte alle 100 Betriebsstunden gereinigt werden. Wenn der Projektor Staub oder Rauch ausgesetzt ist, sollte der Filter öfter gereinigt werden.
•Wenn der Luftfilter zu schmutzig zum Reinigen ist, sollte er ausgewechselt werden. Wenden Sie sich in diesem Fall an den Händler.

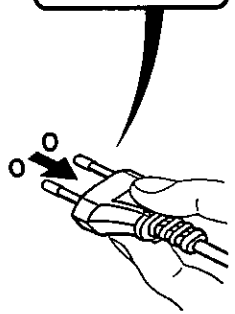


1 Gerät ausschalten

Den Hauptnetzschalter auf OFF stellen.

2 Ziehen des Netzsteckers

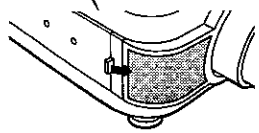
Zum Ziehen des Netzsteckers bitte am Stecker anfassen und keinesfalls am Kabel ziehen.



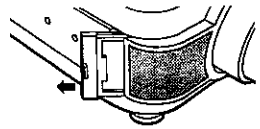
In manchen Ländern kann die Form des Steckers von der Abbildung abweichen.

3 Den Luftfilter entfernen.

Zum Entfernen des Luftfilters zuerst die vorspringende Lasche greifen und dann den Filter in Pfeilrichtung bewegen.

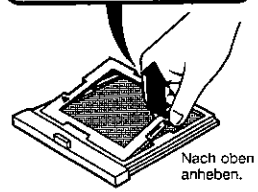


Dann den Filter gerade in Pfeilrichtung herausziehen.

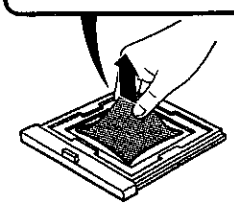


4 Den Schwammfilter entfernen.

Zum Entfernen des Filters den Finger unter eine der "(▲)"-Markierung einhaken.

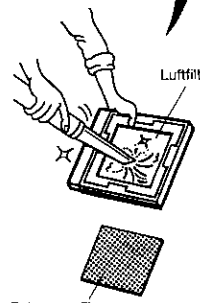


Den Schwammfilter durch Ziehen entfernen.



5 Den Luftfilter reinigen.

Den Staub von Luftfilter und Schwammfilter mit einem Staubsauger absaugen.

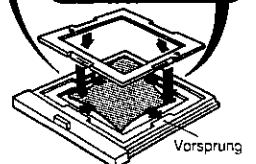


•Den Filter in warmem Wasser mit einem neutralen Lösungsmittel reinigen, wenn der Filter stark verschmutzt ist. Den Filter im Schatten trocknen lassen.

6 Den Luftfilter auswechseln.

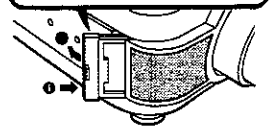
Den Schwammfilter im Luftfilter auswechseln.

Die Filterhalterung durch Einsetzen der Kanten unter die Vorsprünge anbringen.



Die Filterhalterung an den vier Vorsprungen niederdrücken und sicherstellen, daß sie richtig eingesetzt ist.

Den Luftfilter wieder anbringen.



Die oberen und unteren Kanten mit den Nuten im Projektor angleichen und den Filter einschieben.

Lampe

■Die Projektionslampe hat eine begrenzte Lebensdauer.

Wenn die Lampe fast verbraucht ist, nehmen die Bild- und Farbqualität ab. Die Lampe durch den Kundendienst auswechseln lassen.

Das Auswechseln der Projektionslampe erfordert technische Fachkenntnisse und sollte nur durch Ihren Sharp-Händler oder den Sharp-Kundendienst erfolgen.

Warnlampen

■Die Warnlampen des Projektors leuchten auf, wenn irreguläre Bedingungen vorliegen.
■Der Projektor besitzt Warnlampen für Überhitzung und für erforderliches Auswechseln der Lampe.
■Wenn ein Defekt des Projektors auftritt, leuchtet die Überhitzungs- oder Projektionslampen-Warnlampe rot auf und das Gerät schaltet sich aus. In solchen Fällen den Hauptnetzschalter ausschalten und die folgenden Prüfungen vornehmen.

Warnlampe	Symptom	Mögliche Fehlerquellen	Maßnahmen
Überhitzung	Innentemperatur zu hoch.	• Lufteinlässe blockiert	• Projektor an einer günstigeren Stelle aufstellen.
		• Luftfilter zugesetzt	• Luftfilter reinigen.
		• Kühlgebläse defekt • Interne Schaltungen defekt	Projektor in Reparatur geben.
Projektionslampe	Projektionslampe leuchtet nicht.	• Projektionslampe am Ende ihrer Lebensdauer • Projektionslampenschaltkreis defekt	Projektor in Reparatur geben.

HINWEISE:
Wenn die Überhitzungs-Warnlampe rot aufleuchtet und das Gerät ausgeschaltet wird, stellt sich der Projektor auf die Bereitschafts-Betriebsart ein.
Nach dem Ausschalten des Projektors warten, bis die Temperatur im Inneren des Gerätes vor dem Wiedereinschalten ausreichend abgekühlt ist (mindestens fünf Minuten).

Bei Störungen

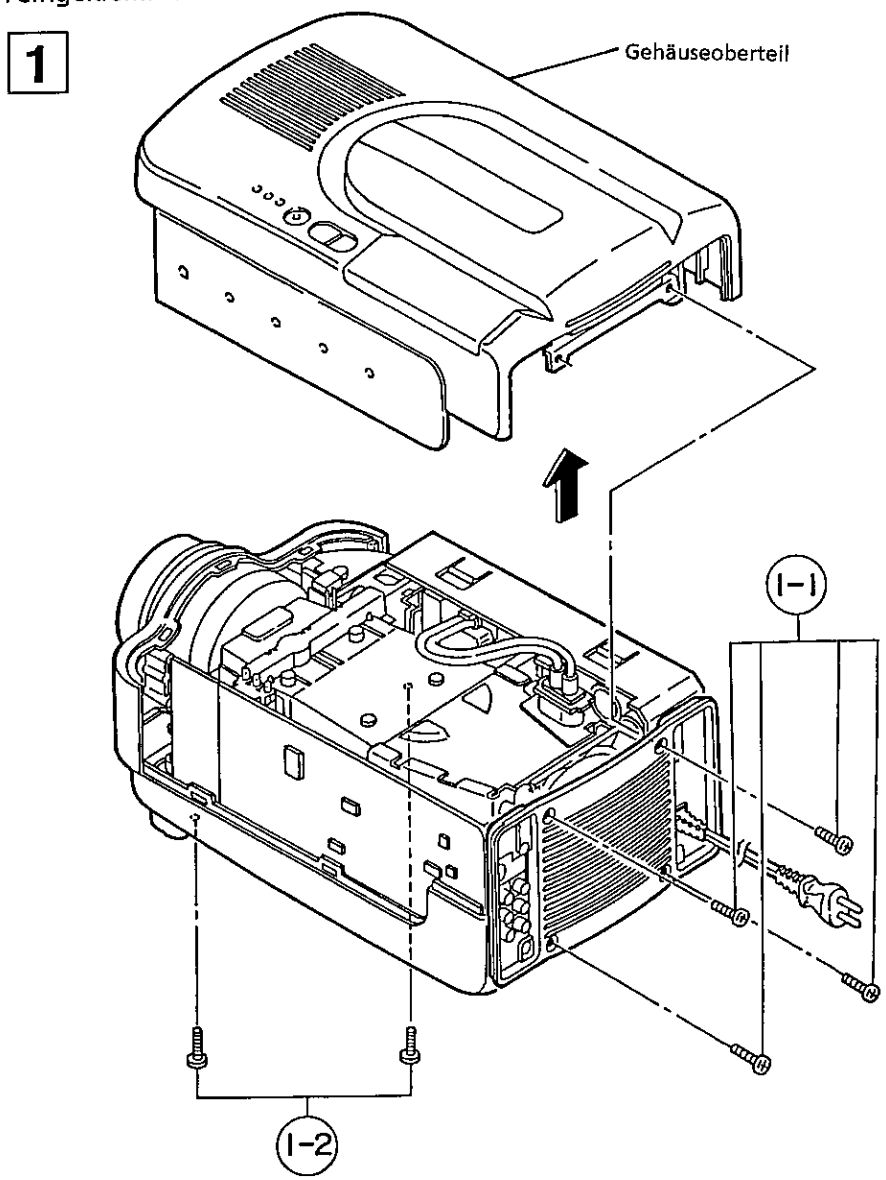
Kein Bild	• Der Projektor ist nicht an eine Netzsteckdose angeschlossen. • Der Hauptnetzschalter (MAIN POWER) ist ausgeschaltet. • Der Helligkeits-Regler (–) und Kontrast-Regler (–) sind auf die Minimum-Position eingestellt. • Der Filter ist falsch oder nicht eingesetzt.
Schwache oder verschwommene Farben	• Sind die Farben (siehe "Bild- und Toneinstellungen") richtig eingestellt?
Verschwommenes Bild	• Die Schärfe einstellen. • Der Projektionsabstand ist zu groß oder zu klein für eine richtige Scharfstellung.
Aus dem Gehäuse kommen manchmal außergewöhnliche Geräusche.	• Wenn das Bild normal ist, entstehen Geräusche durch Verziehungen des Gehäuses durch Temperaturänderungen. Dies hat keinen Einfluß auf den Betrieb.
Warnlampe leuchtet	• Siehe "Warnlampen".
Kein Ton	• Überprüfen, ob der Lautstärkeregler vollständig zurückgedreht ist. • Überprüfen und sicherstellen, daß die Kabel auf der Rückseite des LCD-Projektors richtig angeschlossen sind.

ENTFERNEN DER HAUPTTEILE

1. Entfernen der hinteren Abdeckplatte

1-1. Die sechs Schrauben an der hinteren Abdeckplatte losdrehen,dann die hintere Abdeckplatte abnehmen.
1-2. Die beiden Schrauben an der Unterseite des Gerätes losdrehen.

Vorsichtsmaßnahmen bei der Handhabung des Gerätes
Beim Entfernen oder Anbringen des Gehäuseoberteils sind die folgenden Vorsichtsmaßnahmen zu beachten.
Das Kabel,welches die Lautsprecher an der Innenseite des Gehäuseoberteils mit der Hauptplatine verbindet ist ziemlich kurz.
Das Gehäuseoberteil darf daher nicht zu weit angehoben werden,da andernfalls der Kabelstecker beschädigt werden kann.
Das Gehäuseoberteil geringfügig anheben und das Lautsprecherkabel vom "SP"-Steckverbinder an der Hauptplatine abziehen,dann das Gehäuseoberteil vollständig entfernen.
Beim Aufsetzen des oberen Gehäuseteils zuerst das Lautsprecherkabel wieder an den "SP"-Steckverbinder der Hauptplatine anschließen,dann das Gehäuseoberteil am Gehäuseunterteil aufsetzen und anpassen.Dabei ist das flexible Kabel,welches zwischen der LCD-Tafel und der Hauptplatine verläuft,innerhalb des Gehäuseoberteils zu belassen.Dieses Kabel kann eventuell zwischen den beiden Gehäuseteilen eingeklemmt werden.

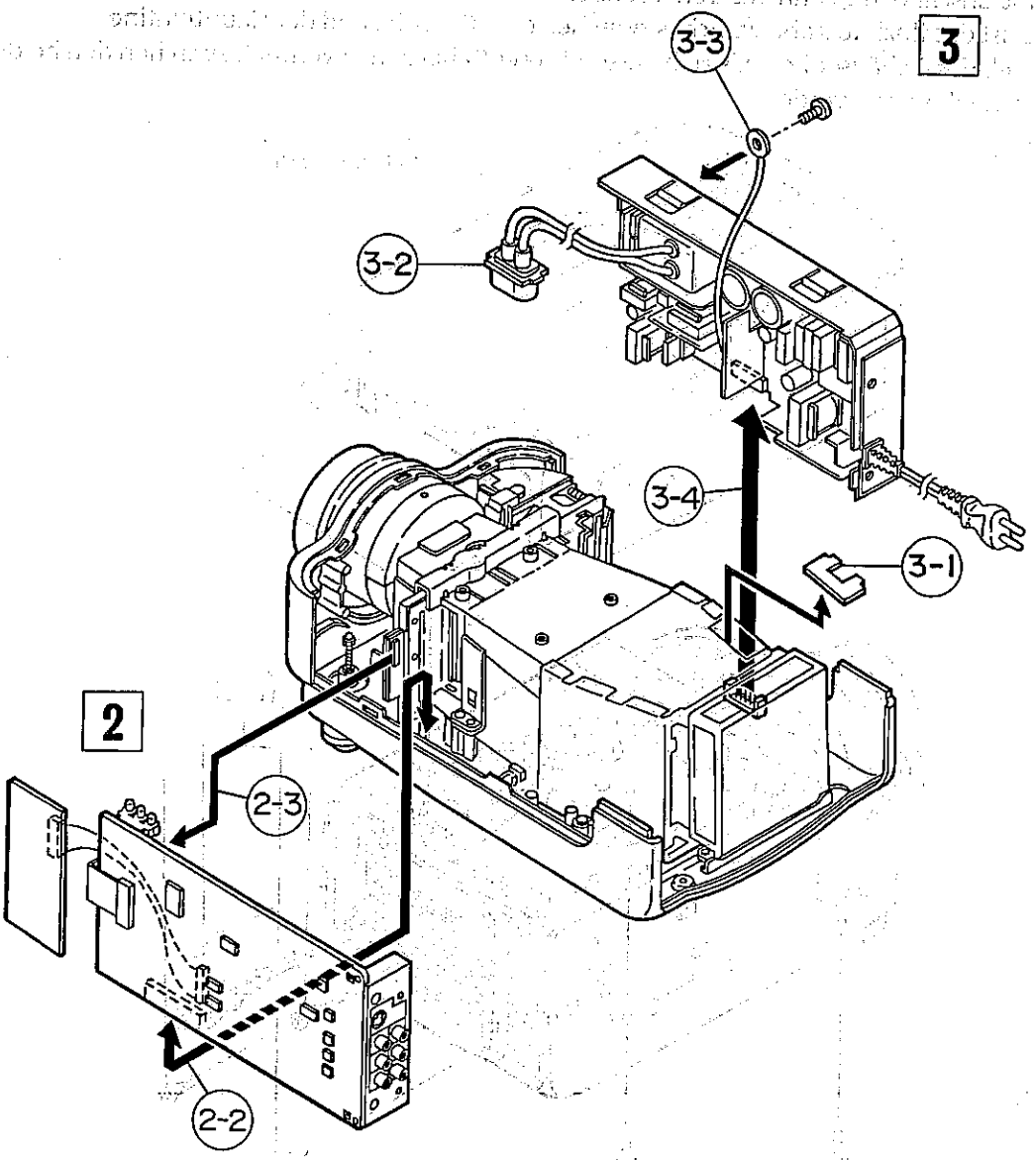


2. Entfernen der Hauptplatine

2-1. Den LCD-Stecker abziehen.
2-2. Vor der Wartung das Service-Bauteil QCNW-3467CEZZ zwischen dem EA-Stecker auf der Hauptplatine und dem EA-Stecker auf der Relais-Platine anschließen.
2-3. Vor der Wartung das Service-Beuteil QCNW-3751CEZZ zwischen dem LCD-Tafel-Stecker und dem LCD-Stecker anschließen.

3. Entfernen der Netz/Ballast-Platineneinheit

3-1. Die Lampenführungssperre aus der Verdrehung befreien und die Lichtabschirmungsplatte herausnehmen.
3-2. Die Lampenführungssperre aus der Verdrehung befreien und die Halterung abtrennen.
3-3. Die Schraube losdrehen,um die Masse-Ösenklemme abzutrennen.Nun die Netz/Ballast-Einheit herausnehmen.
3-4. Vor der Wartung das Service-Bauteil QCNW-3468CEZZ zwischen dem EB-Stecker auf der Netz/Ballast-Platineneinheit und dem EB-Stecker auf der Relais-Platine anschließen.



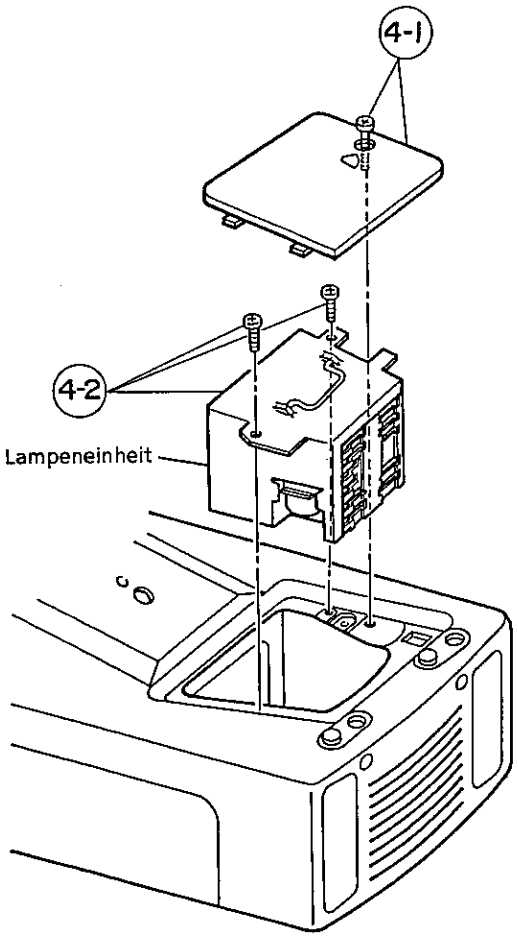
4. Entfernen der Lampeneinheit

4-1. Die Schraube losdrehen,um die untere Abdeckung zu entfernen.
4-2. Die beiden Schrauben losdrehen,welche die Lampeneinheit befestigen.Die Lampe kann nun herausgenommen werden.

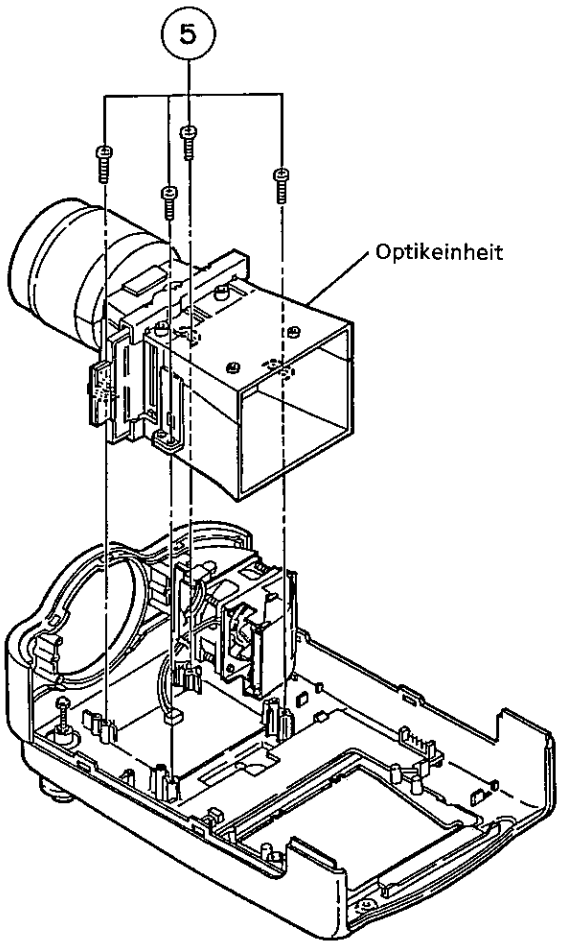
5. Entfernen der Optikeinheit

Die vier Schrauben von der Optikeinheit losdrehen,dann die Optikeinheit entfernen.

4



5



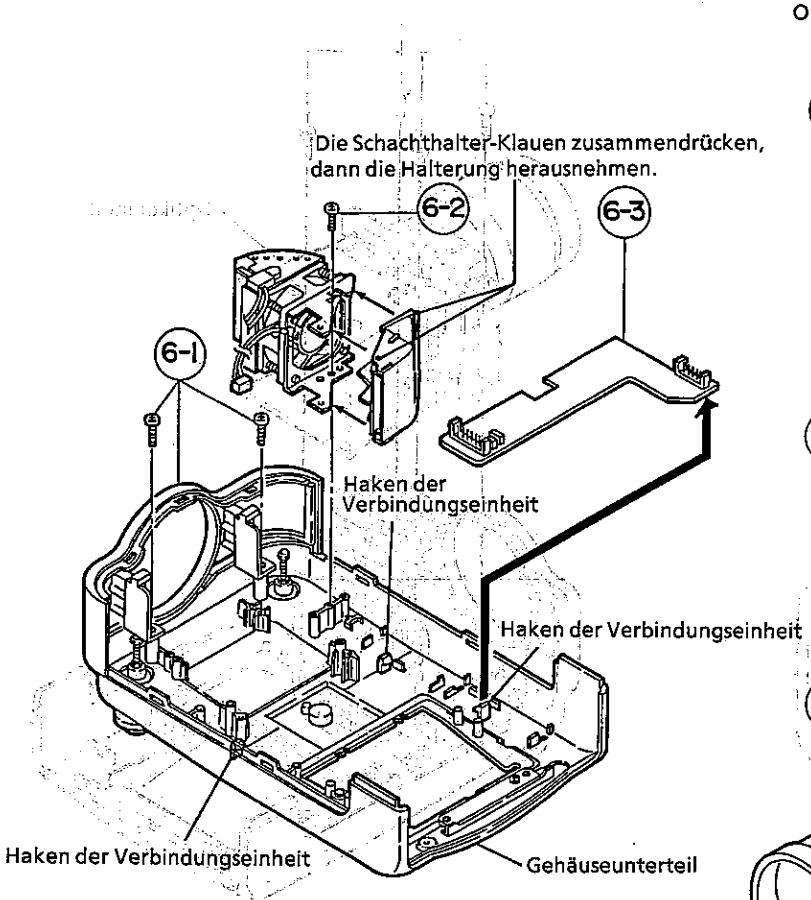
6. Entfernen des Gebläses und der Verbindungseinheit

6-1. Die beiden Schrauben losdrehen,dann die vordere Abdeckung der Einheit herausnehmen.
6-2. Die vorderen gedrückt halten und die Schachthalterung freigeben. Danach die Schraube losdrehen und die Gebläseeinheit herausnehmen.
6-3. die drei Haken lösen und die Verbindungseinheit entfernen.

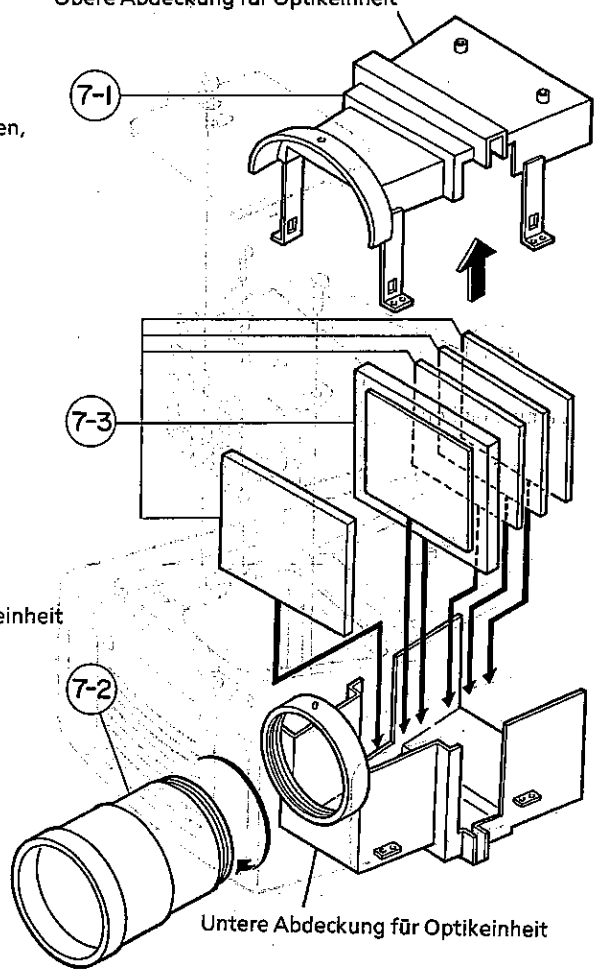
7. Zerlegung und Zusammenbau der Optikeinheit

7-1. Den Objektivdeckel der Optikeinheit abziehen.
7-2. Die Projektionsoptik im Uhrzeigersinn drehen,dann die Optik entfernen.
7-3. Nun die folgenden optischen Bauteile herausnehmen: Fresnellinse,Lichteinfall-Umlenkspiegel,LCD-Tafel,Lichtausfall-Umlenkspiegel,Kondensatorlinse und UV-Sperrfilter.

6



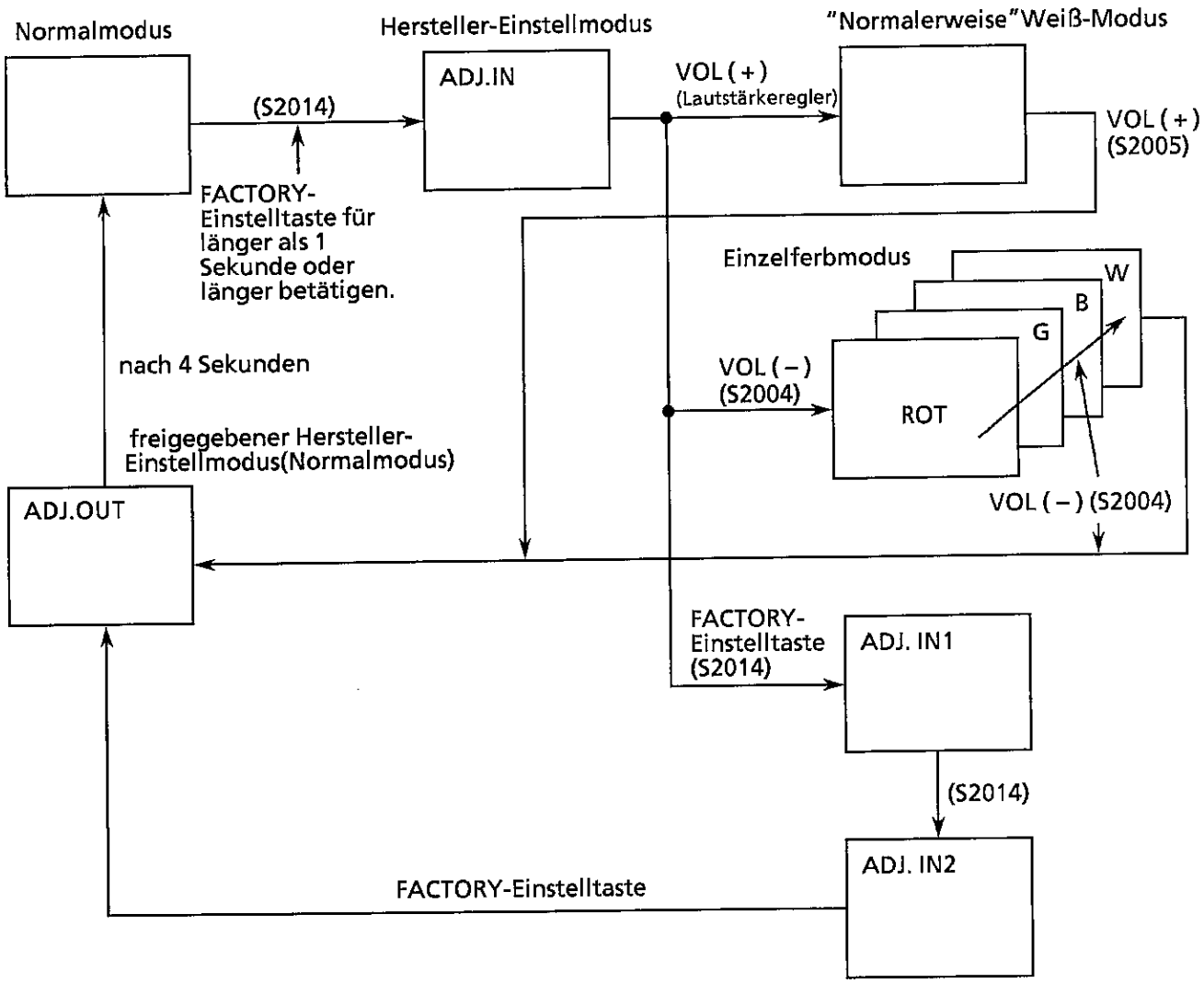
7



FACTORY-EINSTELLMODUS (Hersteller-Einstellmodus)

FACTORY-EINSTELLSCHALTER(S2014)

Den FACTORY-Einstellschalter für länger als 1 Sekunde betätigen, um in den Hersteller-Einstellmodus zu schalten.
Im Hersteller-Einstellmodus werden mit den Tasten die folgenden Einstellungen erzielt:



Die Hersteller-Einstelltaste im Normalmodus länger als eine Sekunde gedrückt halten, worauf der Hersteller-Einstellmodus angewählt und "ADJ.IN"am Bildschirm angezeigt wird.
Bei angezeigtem "ADJ.IN"lassen sich die Tasten VOL (+) , VOL (–) und FACTORY verwenden, um die oben dargestellten und nachfolgend erwähnten Modi anzuwählen.

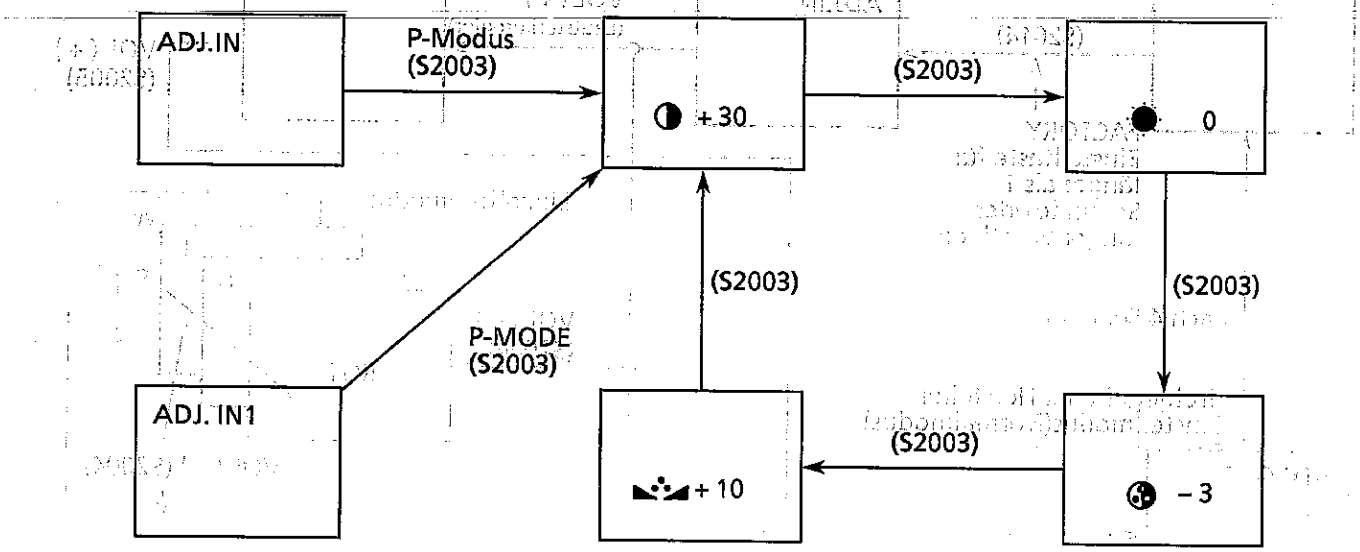
"Normalerweise"Weiß-Modus

In diesem Modus verändert sich die Farbe des Bildschirms normalerweise auf weiß. Die VOL (+)(S2005)-Taste erneut drücken, worauf "ADJ.OUT" zuerst am Bildschirm erscheint.
Danach wird wieder der Normalmodus zurückgerufen.Im "normalerweisen"Weiß-Modus ist nur die VOL (+)(S2005)-Taste wirksam.

Einzelfarbmodus

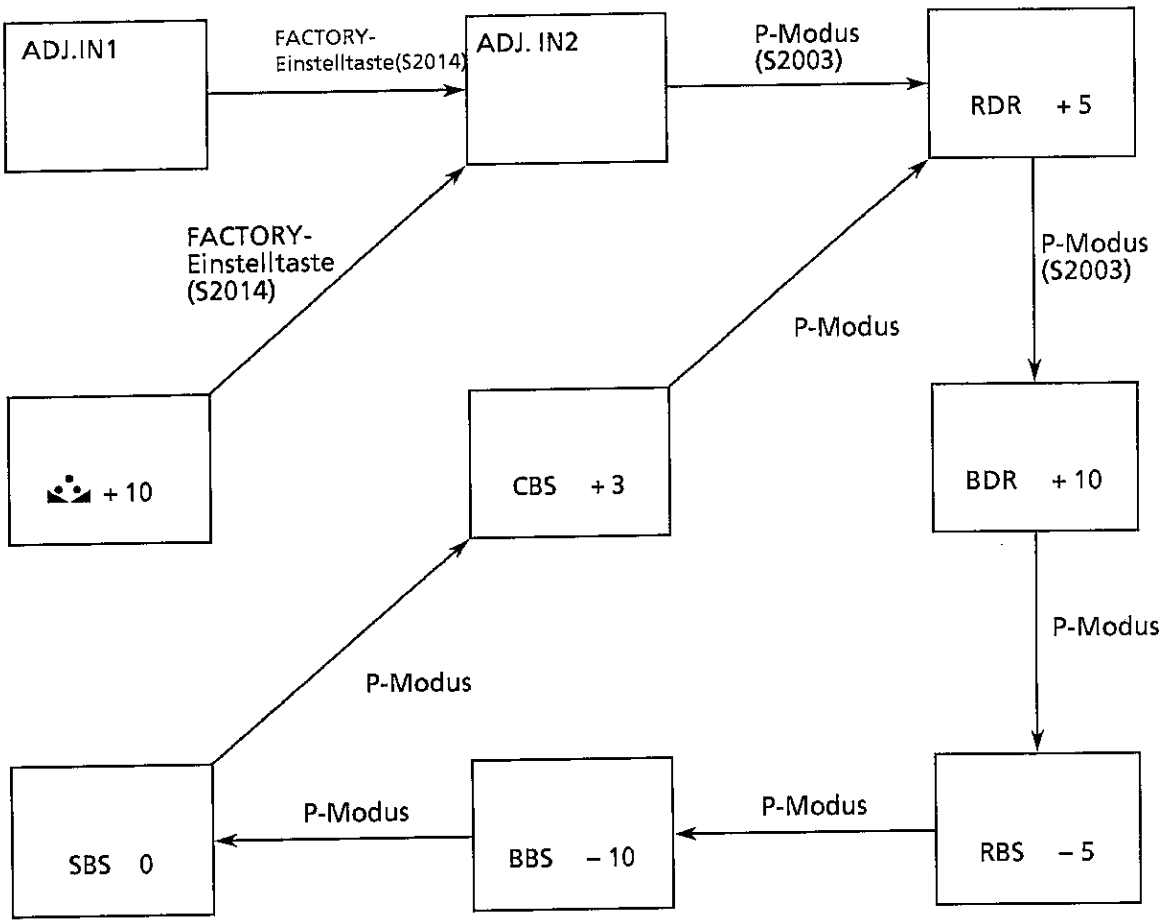
In diesem Modus erscheint eine Einzelfarbe auf dem Bildschirm. Die VOL(+)(S2005)-Taste drücken, worauf sich die Farbe in folgender Reihenfolge verändert : ROT→GRÜN→BLAU→WEISS→ADJ.OUT.Im Einzelfarbmodus ist nur die VOL(−)(S2005)-Taste wirksam.

ADJ.IN1-Modus



Im ADJ.IN oder ADJ.IN1-Modus die P-Modus(S2003)-Taste drücken,um die Video-Einstellposten auf den Bildschirm anzuzeigen.Bei jedem Druck auf die S2003-Taste verändern sich die Einstellposten in der oben dargestellten illustrierten Reihenfolge.
Bei beliebigen Einstellposten auf dem Bildschirm die FACTORY (S2014)-Taste drücken,worauf der ADJ.IN2-Modus auf dem Bildschirm angezeigt wird.

ADJ.IN2-Modus

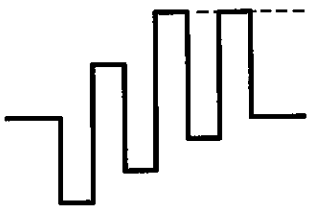
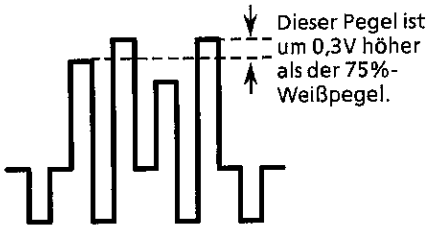
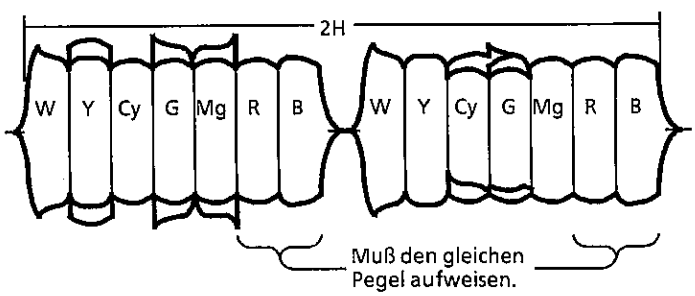


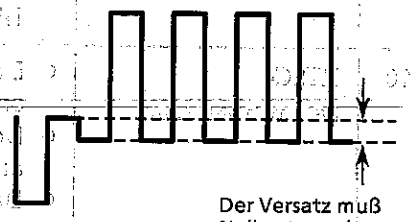
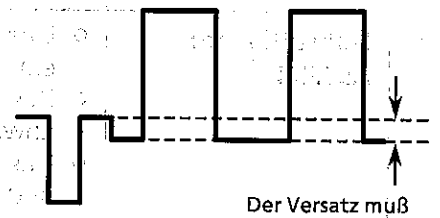
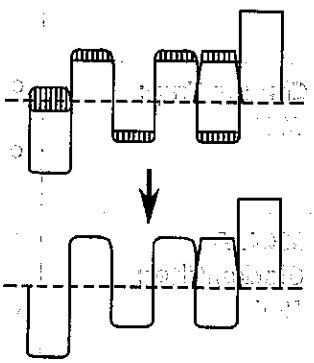
Im ADJ. IN1-Modus oder mit beliebigen ADJ.IN1-Einstellposten am Bildschirm die FACTORY (S2014)-Einstelltaste drücken. Der ADJ.IN2-Modus wird daraufhin auf den Bildschirm gebracht.
Im ADJ.IN2-Modus die P-Modus (S2003)-Taste drücken.Die Treiber-und Vorspannungseinstellposten verändern sich in der oben dargestellten Reihenfolge.
Mit beliebigen Einstellposten am Bildschirm die FACTORY(S2014)-Einstelltaste drücken.ADJ.OUT-Modus wird daraufhin auf zuerst auf den Bildschirm gebracht.
Danach wird wieder der Normalmodus zurückgerufen.
Mit beliebigen Einstellposten am Bildschirm in den ADJ.IN1-oder ADJ.IN2-Modi die SYSTEM (S2010)-Taste drücken, worauf alle Einstellposten für eine gemeinsame Überprüfung am Bildschirm angezeigt werden.

ELEKTRISCHE EINSTELLUNG

Hinweis: Wenn nicht anderweitig bestimmt,sind sämtliche Einstellungen unter Standardbedingungen auszuführen.

Schritt	Einstellposition	Einstellbedingung	Einstellverfahren
1	Initialisierung des Mikroprozessors	• Sicherstellen,daß der Mikroprozessor initialisiert wird.Sämtliche Einstellwerte sind nun initialisiert,um das Gerät für die Einstellung bereit zu haben.	• Die S2014-Taste für länger als 1 Sekunde oder länger betätigen.→"ADJ.IN"erscheint am Bildschirm. • Die S2006-Taste für länger als 1 Sekunde oder länger betätigen.→"SET2"erscheint am Bildschirm.
2	Automatische Verstärkungs-regelung (AGC): R1546	• Das NTSC-Monoskopmuster-Signal empfangen. • Ein Voltmeter zwischen TP1501 und Masse anschließen.	• R1546 so einstellen, daß das Voltmeter 4,0 ± 0,3V anzeigt.
3	Nebenhelligkeit: ADJ.IN1	• Das NTSC-Farbbalkensignal empfangen. • Die Helligkeit im ADJ.IN1-Modus einstellen. • Das Oszilloskop zwischen TP1503 und Masse anschließen.	• Mit den DAC(+)/(−)Tasten so einstellen, daß der Schwarzwertimpuls -2,2 ± 0,05V Gleichspannung aufweist.
4	Nebenkontrast:ADJ. IN1	• Das NTSC-Farbbalkensignal empfangen. • Den Kontrast im ADJ.IN1-Modus einstellen. • Das Oszilloskop zwischen TP1503 und Masse anschließn.	• Mit den DAC(+)/(−)Tasten so einstellen, daß der Weißspitzenpegel -0,8 ± 0,05V Gleichspannung aufweist.
5	R-Treiber: ADJ.IN2 RDR	• Das NTSC-Farbbalkensignal empfangen. • RDR im ADJ.IN2-Modus einstellen. • Das Oszilloskop zwischen TP1502 und Masse anschließen.	• Mit den DAC(+)/(−)Tasten so einstellen,daß der 100%-Weißpegel 0,8 ± 0,05V Gleichspannung aufweist.
6	B-Treiber: ADJ.IN2 DR	• Das NTSC-Farbbalkensignal empfangen. • BDR im ADJ.IN2-Modus einstellen. • Das Oszilloskop zwischen TP1504 und Masse anschließen.	• Mit den DAC (+)/(−)Tasten so einstellen,daß der 100%-Weißpegel 0,8 ± 0,05V Gleichspannung aufweist. • R1546 so einstellen,daß der 100%-Weißpegel 0,5 ± 0,05V Gleichspannung aufweist.
7	Nebenvorspannung: ADJ.IN2 SBS	• Das NTSC-Farbbalkensignal empfangen. • SBS im ADJ.IN2-Modus einstellen. • Das Oszilloskop zwischen TP7(VG1) und Masse anschließen.	• Den Weiß-zu-Weißpegel der invertierten und nichtinvertierten Wellen auf 1,6 ± 0,05Vs-s einstellen.

Schritt	Einstellposition	Einstellbedingung	Einstellverfahren
8	**R-Nebenvorspannung: ADJ.IN2 RBS**	• Das NTSC-Farbbalkensignal empfangen. • RBS im ADJ.IN2-Modus anwählen. • Das Oszilloskop zwischen TP8(VG1)und Masse anschließen.	• Mit den DAC (+)/(−)Tasten den Weiß-zu-Weißpegel der invertierten und nichtinvertierten Wellen auf 1,1 ± 0,1Vs-s einstellen.
9	**R-Nebenvorspannung: ADJ.IN2 BBS**	• Das NTSC-Farbbalkensignal empfangen (Ja-8ch). • RBS im ADJ.IN2-Modus anwählen. • Das Oszilloskop zwischen TP6(VG1)und Masse anschließen.	• Mit den DAC (+)/(−)Tasten den Weiß-zu-Weißpegel der invertierten und nichtinvertierten Wellen auf 1,9 ± 0,1Vs-s einstellen.
10	**NTSC-Farbton:ADJ.IN1**	• Das NTSC-Farbbalkensignal empfangen. • Den Farbton im ADJ.IN1-Modus anwählen. • Das Oszilloskop zwischen TP808 und Masse anschließen.	• Mit den DAC(+)/(−)Tasten die nachfolgend dargestellte Wellenform einstellen. 
11	**Farbsättigung: ADJ.IN1**	• Das NTSC-Farbbalkensignal empfangen. • Das Farbsignal im ADJ.IN1-Modus anwählen. • Das Oszilloskop zwischen TP803 und Masse anschließen.	• Mit den DAC (+)/(−)Tasten die nachfolgend dargestellte Wellenform einstellen. 
12	**Chroma-Trap: T402**	• Das PAL-Farbbalkensignal empfangen. • Das Oszilloskop zwischen TP401 und Masse anschließen.	• T402 so einstellen,daß der Chromaträger den Minimalwert aufweist.
13	**Chroma-Trap: T401**	• Das SECAM-Farbbalkensignal empfangen. • Das Oszilloskop zwischen TP401 und Masse anschließen.	• T401 so einstellen,daß der Chromaträger den Minimalwert aufweist.
14	**SECAM-Glockenfilter: T805**	• Das SECAM-Farbbalkensignal empfangen. • Das Oszilloskop zwischen TP806 und Masse anschließen.	• T805 so einstellen,daß RB(1)und RB(2)in der 2H-Periode die gleiche Amplitude aufweisen. Siehe nachfolgende Abbildung. 

Schritt	Einstellposition	Einstellbedingung	Einstellverfahren
15	**SECAM ID:T804**	• Das SECAM-Farbbalkensignal empfangen. • Das Oszilloskop zwischen TP805 und Masse anschließen.	• T804 so einstellen,daß der Gleichstrompegel dem Maximalwert entspricht.
16	**SECAM B-Y:T801**	• Das SECAM-Farbbalkensignal empfangen. • Das Oszilloskop zwischen TP803 und Masse anschließen.	• T801 so einstellen,daß der Versatz Null entspricht. Siehe untere Abbildung.  Der Versatz muß Null entsprechen.
17	**SECAM R-Y:T802**	• Das SECAM-Farbbalkensignal empfangen. • Das Oszilloskop zwischen TP804 und Masse anschließen.	• T804 so einstellen,daß der Versatz Null entspricht. Siehe untere Abbildung.  Der Versatz muß Null entsprechen.
18	**PAL 1H-Verzögerung: phase;T803, Verstärkung; R859**	• Das PAL-Farbbalkensignal (E-12CH) empfangen. • Das Oszilloskop zwischen TP808 und Masse anschließen.	• R859 und T805 so einstellen,daß die schraffierten Abschnitte sich wie in der nachfolgenden Abbildung verändern.  Nach der Einstellung
19	**Scan-Konversions-oszillation: L4101**	• Einen Kurzschluß zwischen TP4101 und Masse(GND)verursachen. • Den Frequenzmesser zwischen TP4102 und Masse anschließen.	• L4101 so einstellen,daß der Frequenzmesser 15,625 ± 0,01kHz anzeigt.

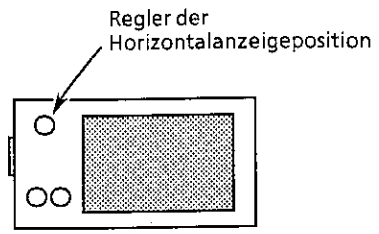
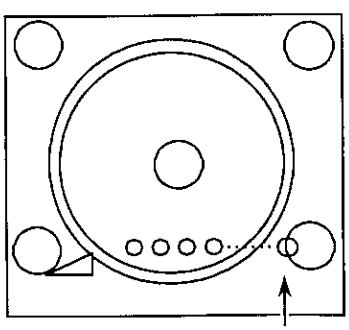
Schritt	Einstellposition	Einstellbedingung	Einstellverfahren
20	**PAL Y-Pegel: R4162**	• Das PAL-Farbbalkensignal empfangen. • Das Oszilloskop zwischen TP801 und Masse anschließen.	• R4162 so einstellen,daß der Unterschied zwischen der Schwarzabhebung und dem Weißpegel 1,0 ± 0,05/-0Vs-s beträgt.
21	**Gegenvorspannung (Feineinstellung): R1479**	• Das NTSC-Monoskopmuster-Signal empfangen.	• 1.R1479 auf den schärfsten Kontrast einstellen.
22	**Weißbalance (Feineinstellung): R1667(B),R1673(R)**	• Das NTSC-Monoskopmuster-Signal empfangen.	• Den Bildschirm beobachten und die Weißbalance überprüfen. Wenn diese nicht den Spezifikationen entspricht, Feineinstellung von R1667 und R1673 vornehmen.Für die endgültige Abstimmung das Ja-4ch-Signal empfangen und die Hautfarbe prüfen.
23	**NTSC (Horizontal-anzeigeposition)**	• Das NTSC-Monoskopmuster-Signal empfangen.	• Den Regler der Horizontalanzeigeposition auf der LCD-Tafel so verstellen, daß das Bild mittig ausgerichtet ist. 
24	**PAL (Horizontal-anzeigeposition)**	• Das PAL-Monoskopmuster-Signal empfangen.	• R1605 so einstellen,daß das Bild mittig ausgerichtet ist.
25	**Zeichenposition: T2001**	• Das NTSC-Monoskopmuster-Signal empfangen. • Den S-UP-Schalter gedrückt halten,dann die Einstellspule für die Zeichenposition überprüfen (T2001).	 Die äußerste Markierungsmarke muß hier positioniert werden.

TABELLE FÜR STÖRUNGSSUCHE

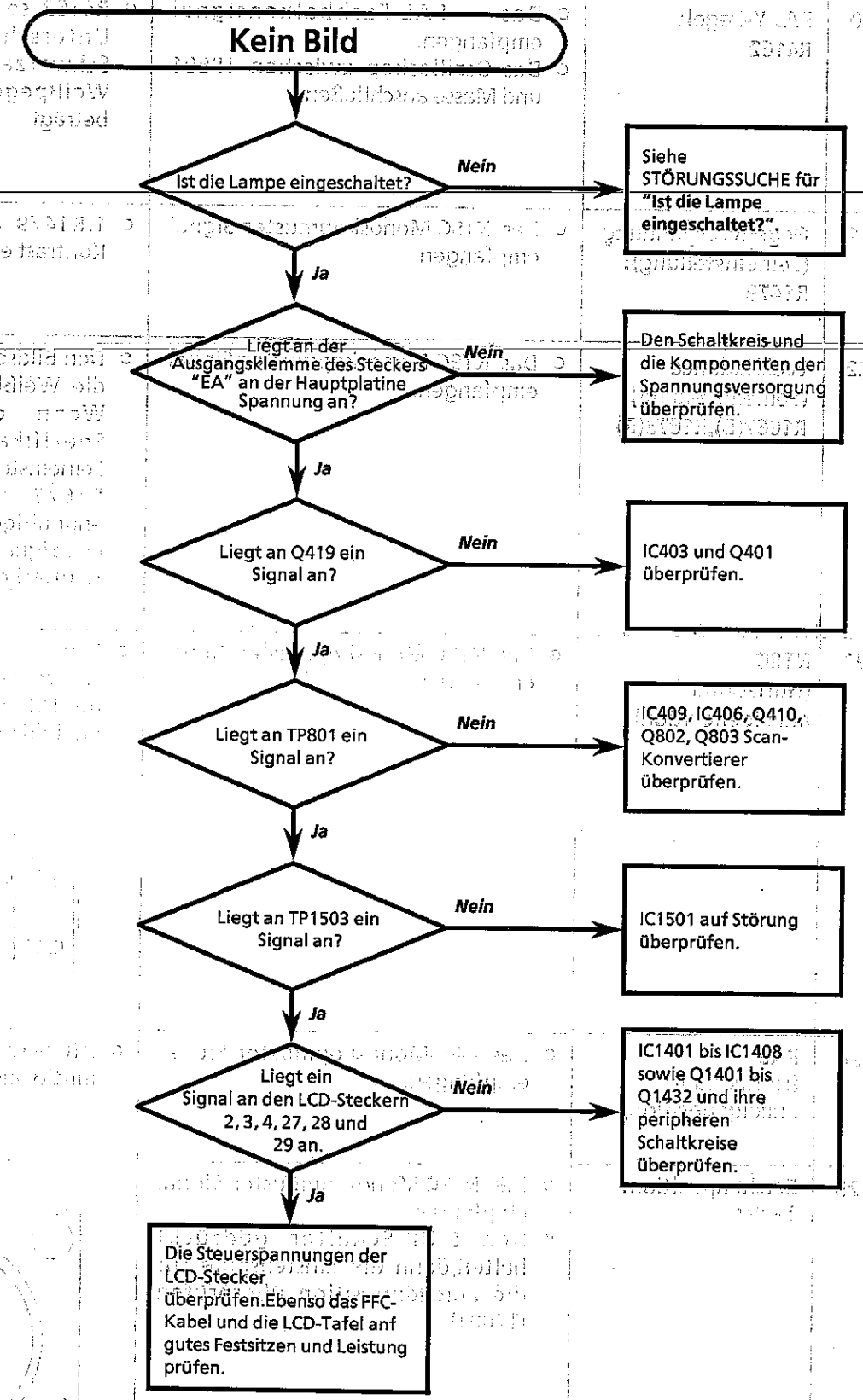
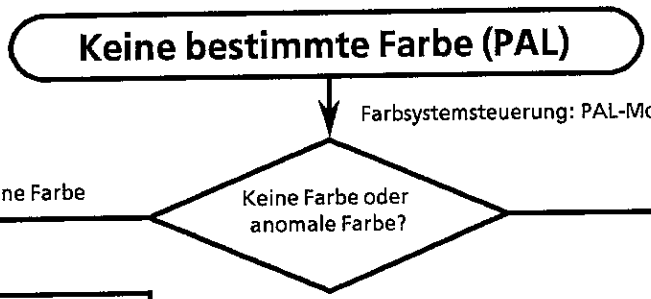
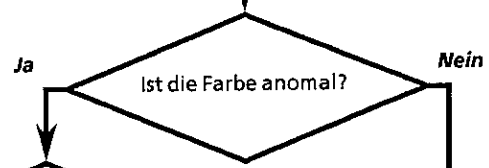
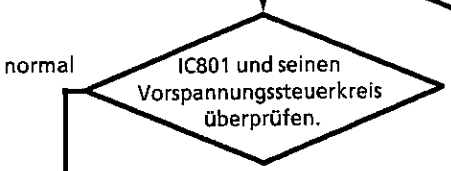

Kein Bild
Ist die Lampe eingeschaltet?
Nein
Siehe STÖRUNGSSUCHE für "Ist die Lampe eingeschaltet?".
Ja
Liegt an der Ausgangsklemme des Steckers "EA" an der Hauptplatine Spannung an?
Nein
Den Schaltkreis und die Komponenten der Spannungsversorgung überprüfen.
Ja
Liegt an Q419 ein Signal an?
Nein
IC403 und Q401 überprüfen.
Ja
Liegt an TP801 ein Signal an?
Nein
IC409, IC406, Q410, Q802, Q803 Scan-Konvertierer überprüfen.
Ja
Liegt an TP1503 ein Signal an?
Nein
IC1501 auf Störung überprüfen.
Ja
Liegt ein Signal an den LCD-Steckern 2, 3, 4, 27, 28 und 29 an.
Nein
IC1401 bis IC1408 sowie Q1401 bis Q1432 und ihre peripheren Schaltkreise überprüfen.
Ja
Die Steuerspannungen der LCD-Stecker überprüfen.Ebenso das FFC-Kabel und die LCD-Tafel anf gutes Festsitzen und Leistung prüfen.

TABELLE FÜR STÖRUNGSSUCHE (fortgesetzt)



Ist die Spannung an den Stiften (15),(31)und (38)von IC801 normal?
Normalspannung:**Tabelle für Farbsystemsteuerung**





X802,C825,R846 ,R859 und DL801 überprüfen.

IC801 überprüfen.

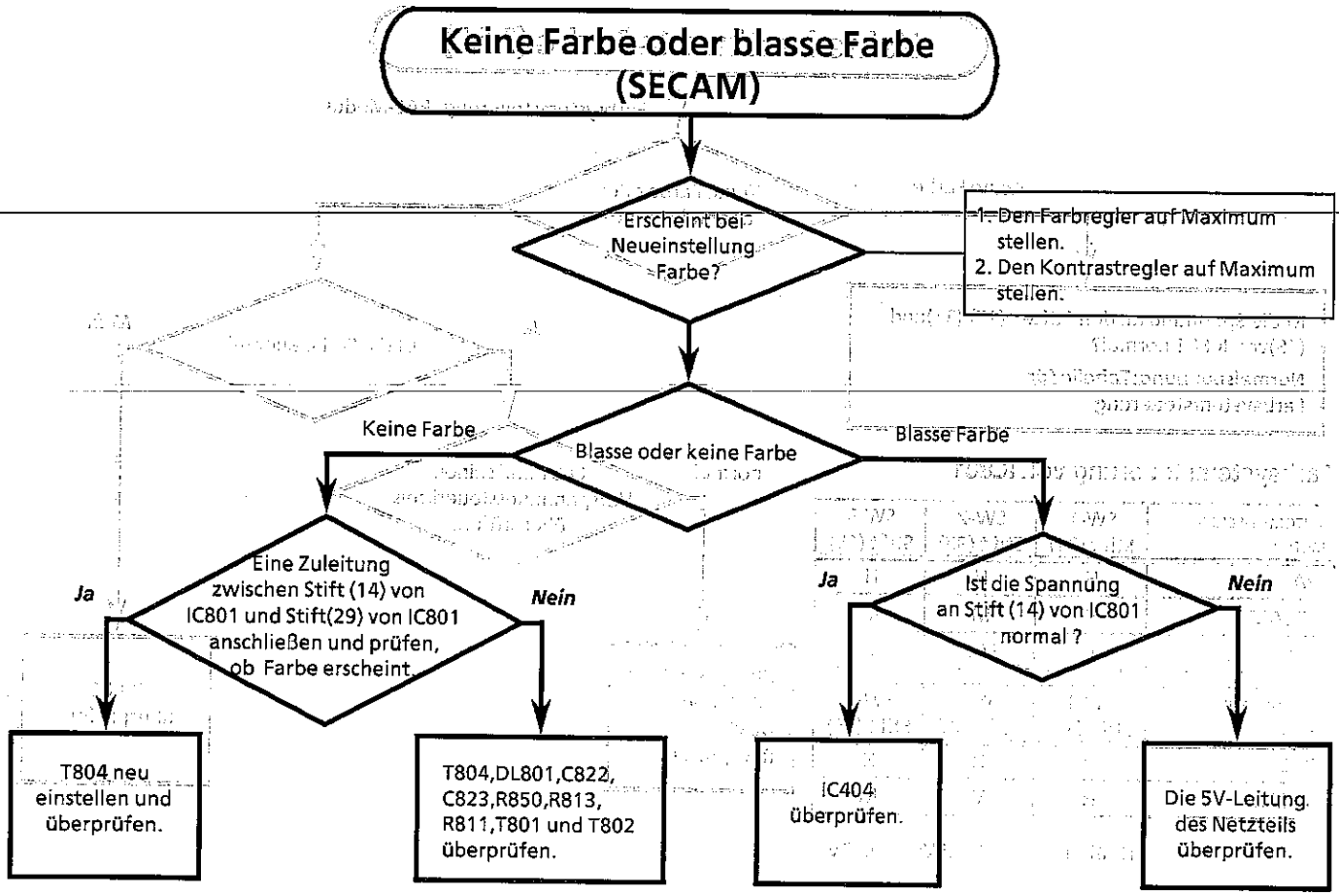
Farbsystemsteuerung von IC801

AUTOMATISCHER MODUS	SW-1 Stift (31)	SW-2 Stift (38)	SW-3 Stift (15)
PAL	H	H	H
SECAM	H	M	M
B/W	L	M/L	L

ERZWUNGENER MODUS	SW-1 Stift (31)	SW-2 Stift (38)	SW-3 Stift (15)
PAL	H	H	H
SECAM	H	M	M

H: über 3V M: 1,5V L: 0V

TABELLE FÜR STÖRUNGSSUCHE(fortgesetzt)


Keine Farbe oder blasse Farbe (SECAM)
Erscheint bei Neueinstellung Farbe?
1. Den Farbregler auf Maximum stellen.
2. Den Kontrastregler auf Maximum stellen.
Blasse oder keine Farbe
Keine Farbe
Blasse Farbe
Eine Zuleitung zwischen Stift (14) von IC801 und Stift(29) von IC801 anschließen und prüfen, ob Farbe erscheint.
Ja
Nein
Ist die Spannung an Stift (14) von IC801 normal ?
Ja
Nein
T804 neu einstellen und überprüfen.
T804,DL801,C822, C823,R850,R813, R811,T801 und T802 überprüfen.
IC404 überprüfen.
Die 5V-Leitung des Netzteils überprüfen.

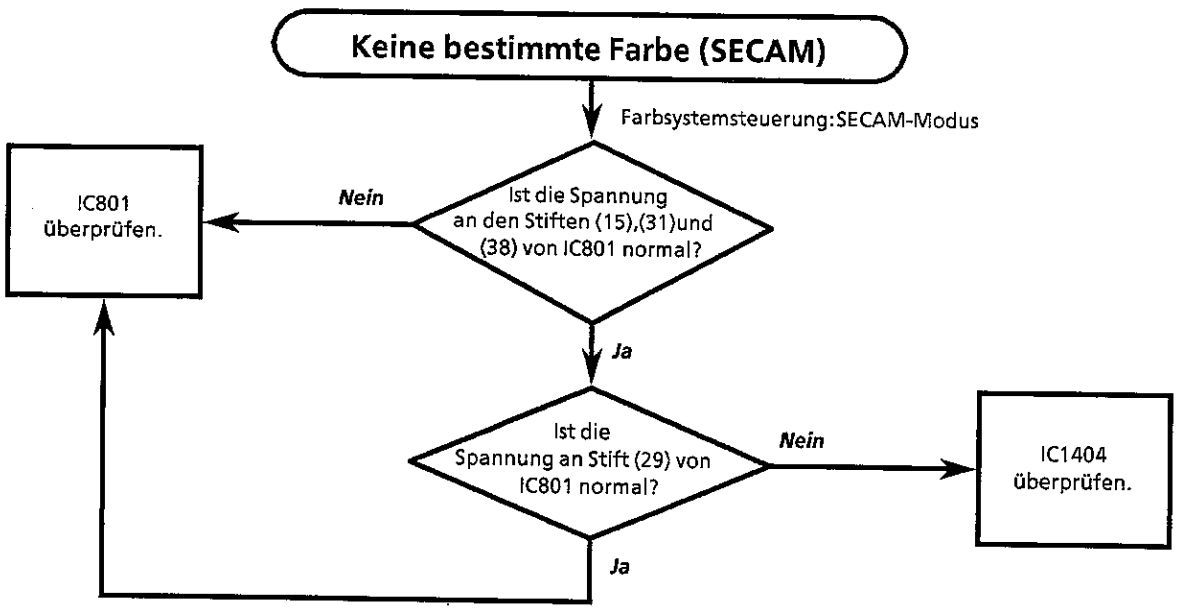


TABELLE FÜR STÖRUNGSSUCHE (fortgesetzt)

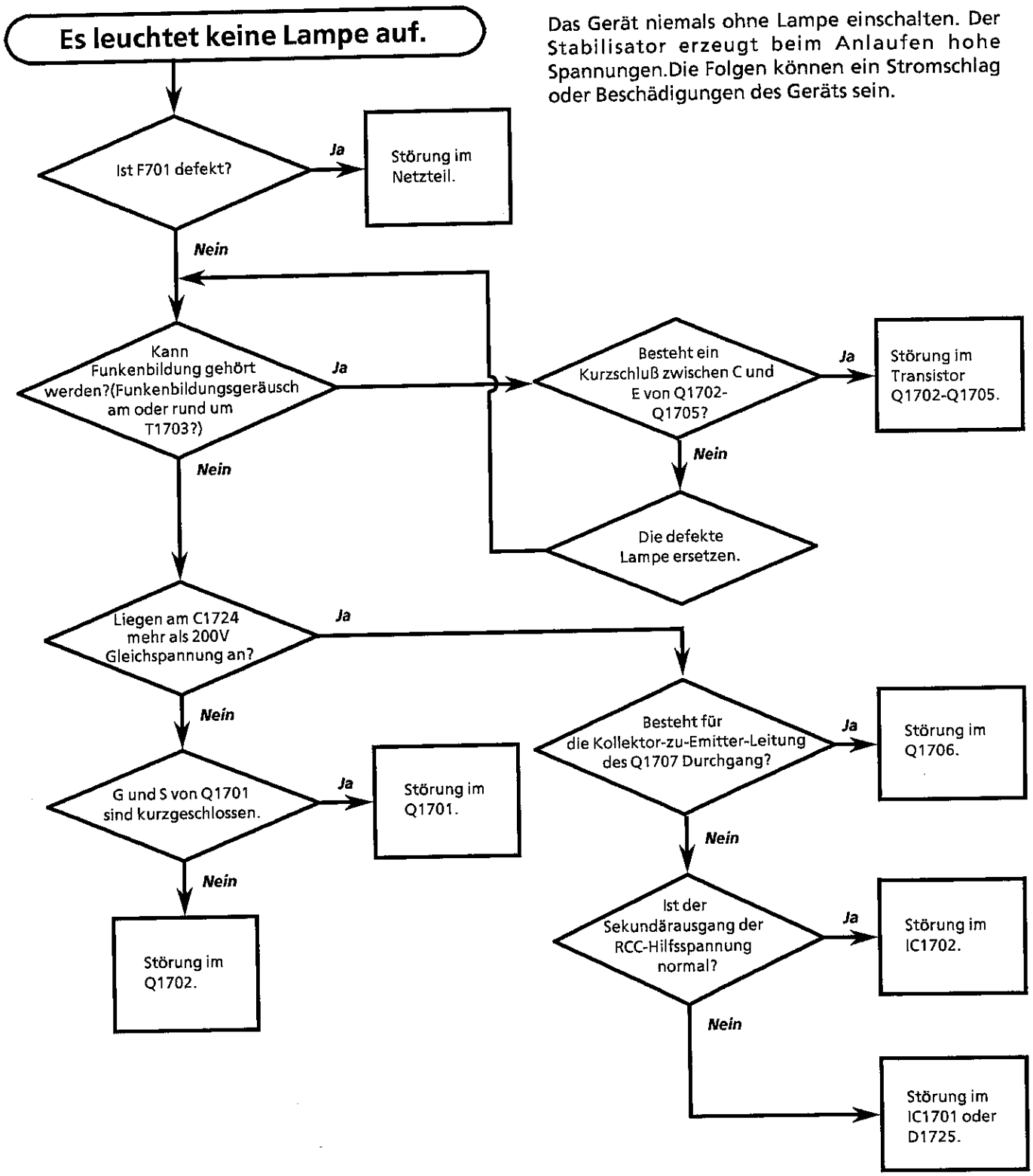
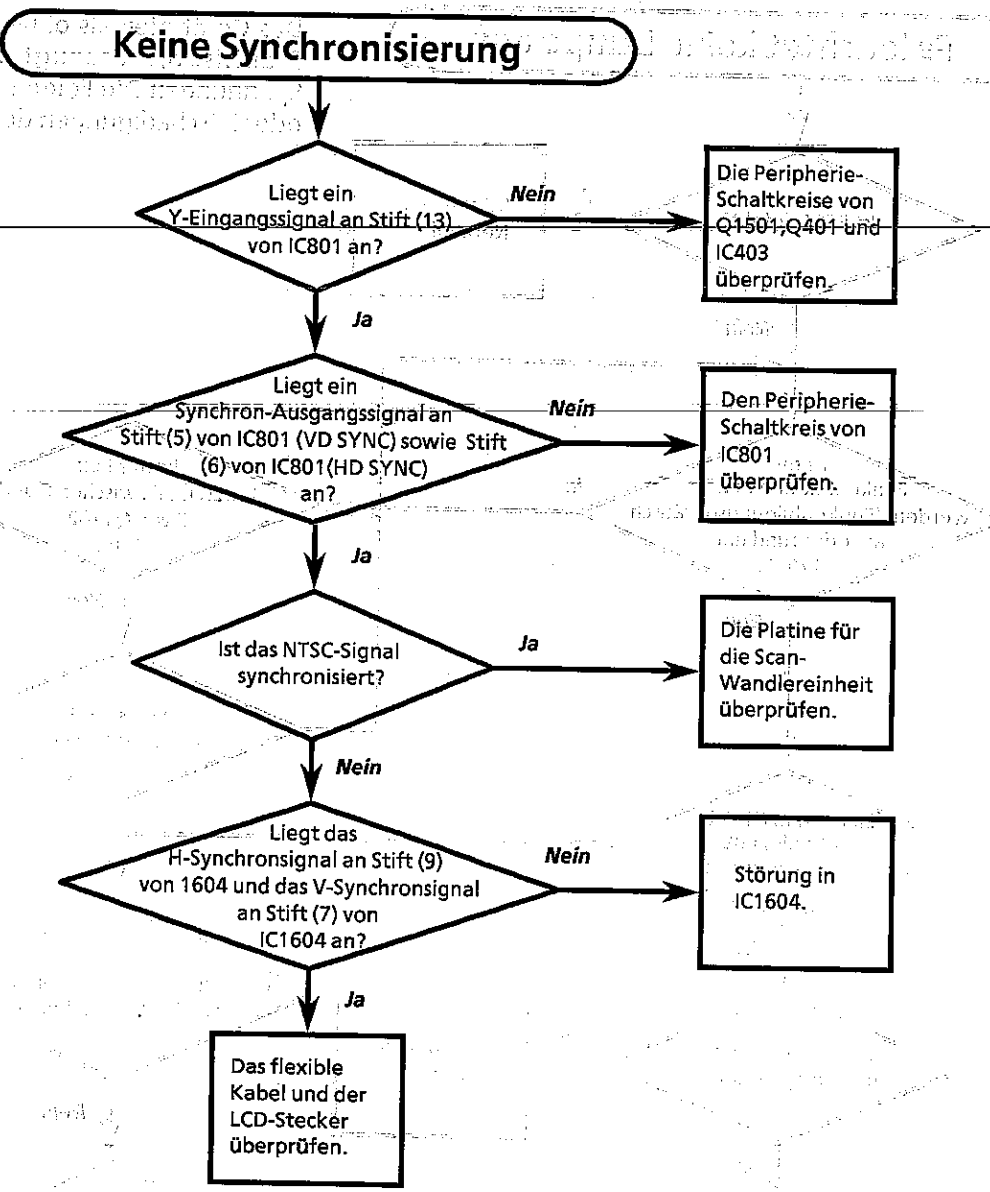
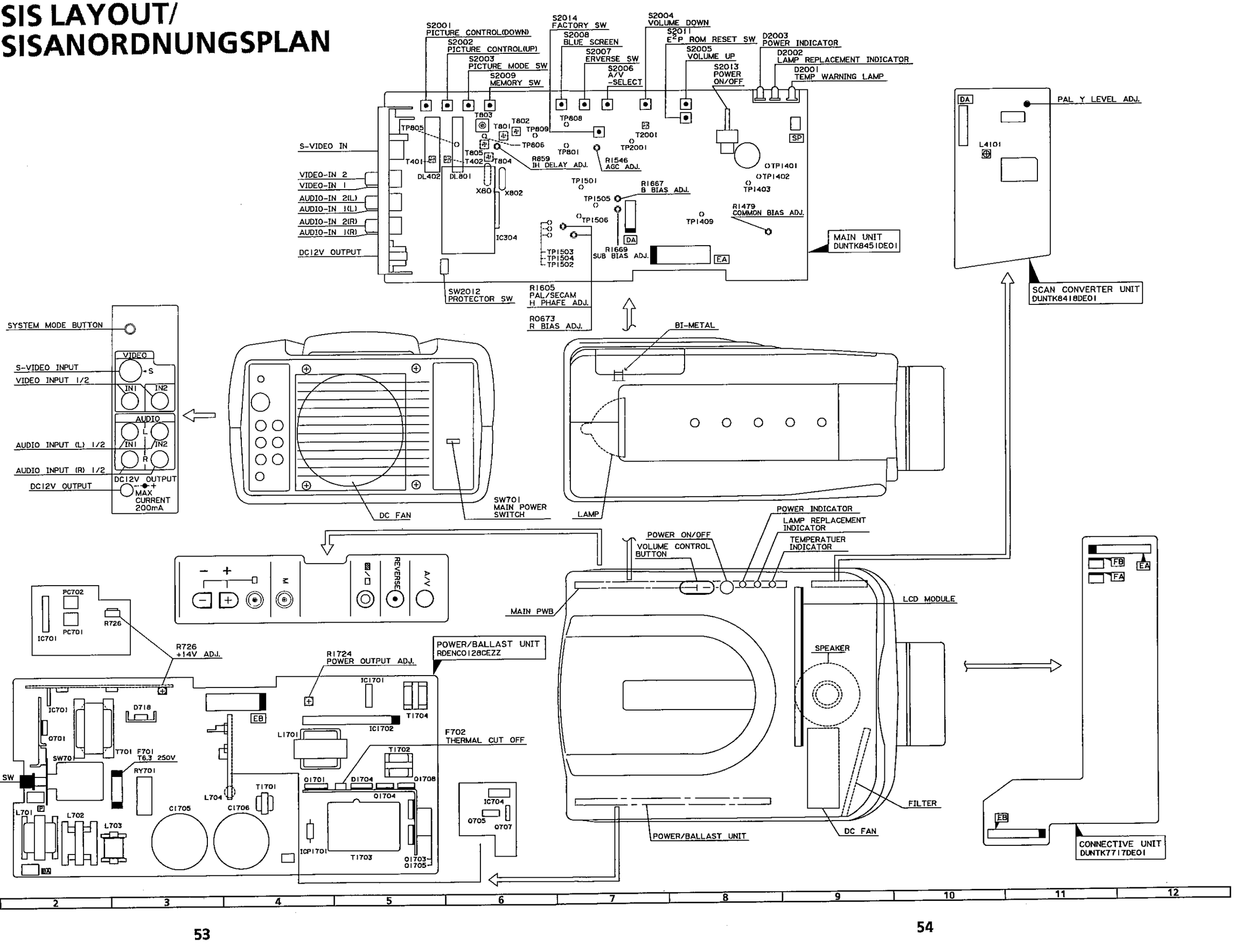


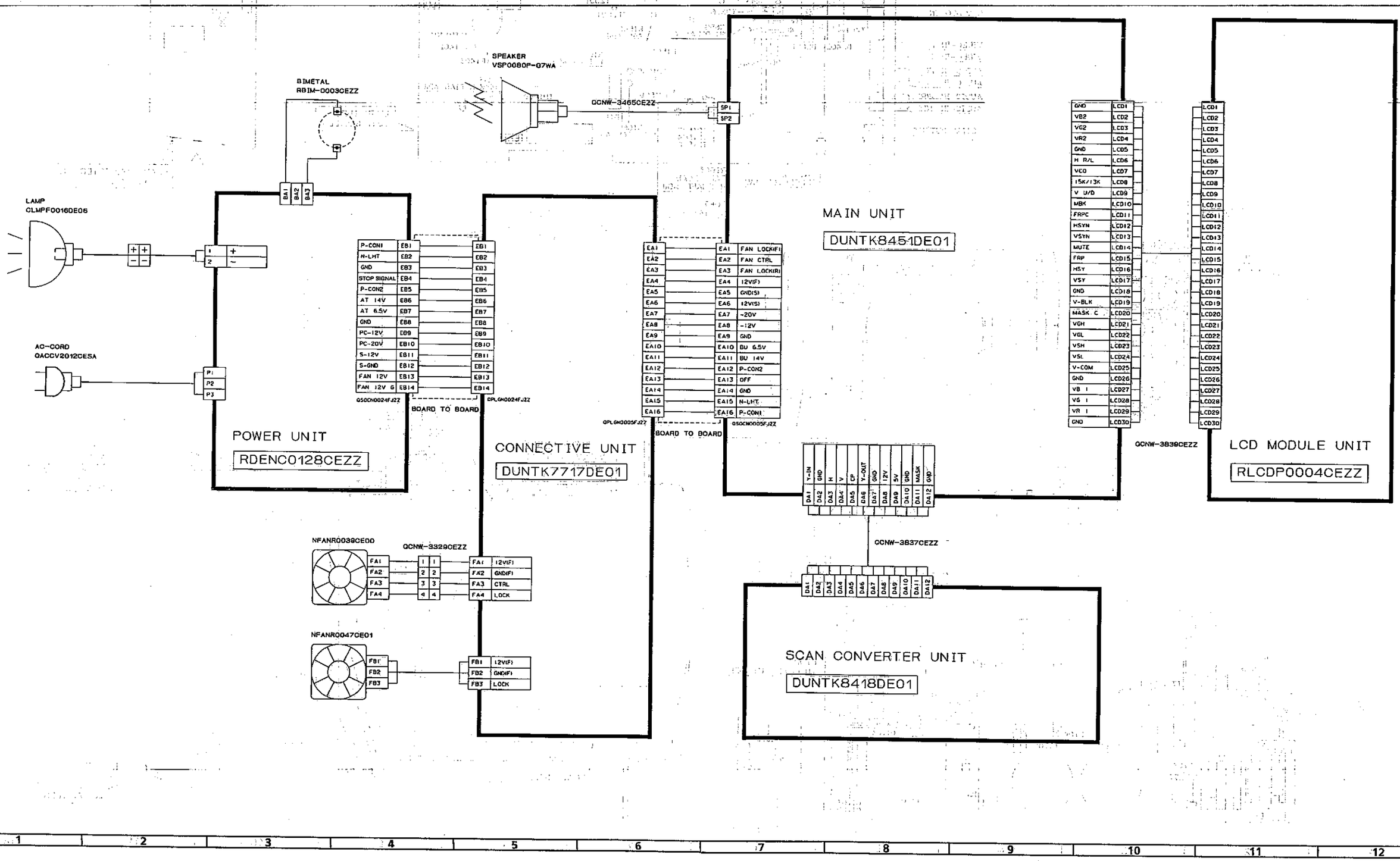
TABELLE FÜR STÖRUNGSSUCHE (fortgesetzt)


Keine Synchronisierung
Liegt ein Y-Eingangssignal an Stift (13) von IC801 an?
Nein
Die Peripherie-Schaltkreise von Q1501,Q401 und IC403 überprüfen.
Ja
Liegt ein Synchron-Ausgangssignal an Stift (5) von IC801 (VD SYNC) sowie Stift (6) von IC801 (HD SYNC) an?
Nein
Den Peripherie-Schaltkreis von IC801 überprüfen.
Ja
Ist das NTSC-Signal synchronisiert?
Ja
Die Platine für die Scan-Wandlereinheit überprüfen.
Nein
Liegt das H-Synchronsignal an Stift (9) von 1604 und das V-Synchronsignal an Stift (7) von IC1604 an?
Nein
Störung in IC1604.
Ja
Das flexible Kabel und der LCD-Stecker überprüfen.

CHASSIS LAYOUT/ CHASSISANORDNUNGSPLAN



OVERALL WIRING DIAGRAM/ GESAMTSCHALTPLAN



DESCRIPTION OF SCHEMATIC DIAGRAM

VOLTAGE MEASUREMENT CONDITION:

1. Voltages at test points are measured at the supply voltage of AC 220V. Signals are fed by a colour bar signal generator for servicing purpose and the above voltages are measured with a 20-kohm/V tester.

WAVEFORM MEASUREMENT CONDITION:

1. Waveforms at test points are observed at the supply voltage of AC 220V. Signals are fed by a colour bar signal generator for servicing purpose.

INDICATION OF RESISTOR & CAPACITOR:

RESISTOR

1. The unit of resistance "Ω" is omitted. (K = kΩ = 1000 Ω, M = MΩ).
2. All resistors are ± 10%, unless otherwise noted. (J = ± 5%)
3. All resistors are 1/8W, unless otherwise noted.
4. All resistors are Carbon type, unless otherwise noted.
   Ⓒ: Solid Ⓦ: Cement
   Ⓢ: Oxide Film Ⓣ: Special
   Ⓝ: Metal Coating

CAPACITOR

1. All capacitors are μF, unless otherwise noted. (P = pF = μμF).
2. All capacitios are 50V, unless otherwise noted.
3. All capacitios are Ceramic type, unless otherwise noted.
   (ML): Mylar (TA): Tantalum
   (PF): Polypro Film (ST): Styrol

CAUTION:
This circuit diagram is original one, therefore there may be a slight difference from yours.

SAFETY NOTE:

1. DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACEING PARTS.
2. SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.

IMPORTANT SAFETY NOTICE:

PARTS MARKED WITH "⚠" (▒▒▒▒▒) ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

BESCHREIBUNG DES SCHEMATISCHEN SCHALTPLANS

SPANNUNGSMESSUNGEN

1. Spannungen an den Prüfpunkten werden bei einer Netzspannung von 220V gemessen.Signale werden für die Wartung mit einem Farbbalken-Signalgenerator zugeführt,und Spannungen werden mit einem Meßinstrument (20k ohm/V)ermittelt.

SIGNALFORMMESSUNGEN

1. Die Wellenformen an den Prüfpunkten werden bei einer Netzspannung von 220V verfolgt.Signale werden für die Wartung mit einem Farbbalken-Signalgenerator zugeführt.

BEZEICHNUNG DES WIDERSTANDS UND KONDENSATORS WIDERSTAND

1. Wie Widerstandseinheit "Ω" wird weggelassen.(K = kΩ = 1000Ω, M = MΩ)
2. Alle Widerstände haben ± 10%,sofern nicht anders angegeben.(J = ± 5%)
3. Alle Widerstände haben 1/8W,sofern nicht anders angegeben.
4. Alle Widerstände sind Kohletyp,sofern nicht anders angegeben.
   Ⓒ: Fest Ⓦ: Zement
   Ⓢ: Oxidfilm Ⓣ: Spezial
   Ⓝ: Metallüberzug

KONDENSATOR

1. Die Kapazitätseinheit ist μF,sofern nicht anders angegeben. (P = pF = μμF).
2. Alle Widerstände haben 50V,sofern nicht anders angegeben.
3. Alle Widerstände sind Keramiktyp,sofern nicht anders angegeben.
   (ML): Mylar (TA): Tantal
   (PF): Polyprofilm (ST): Styrol

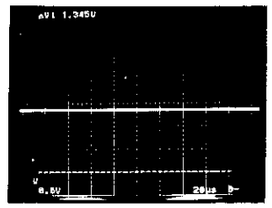
ACHTUNG:
Bei diesem Schaltplan handelt es sich um die ursprüngliche Version.Es können daher geringe Unterschiede zu Ihrem Schaltplan bestehen.

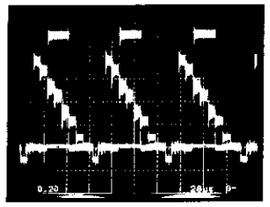
SICHERHEITSANMERKUNGEN:

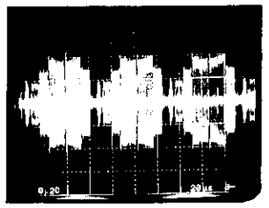
1. VOR DEM AUSWECHSELN VON BAUTEILEN MUSS UNBEDINGT DER NETZSTECKER AUS DER NETZSTECKDOSE GEZOGEN WERDEN.
2. DIE WÄRMEABLEITER DER HALBLEITER SOLLTEN BEIM BETRIEB ALS MÖGLICHE URSACHE GEFÄHRLICHER ELEKTRISCHER SCHLÄGE BETRACHTET WERDEN.

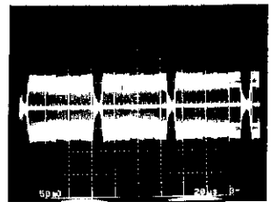
WICHTIGE SICHERHEITSHINWEISE:

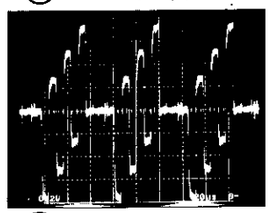
DIE MIT "⚠"(▒▒▒▒▒) MARKIERTEN TEILE SIND FÜR DIE AUFRECHTERHALTUNG DER SICHERHEIT BESONDERS WICHTIG.BEIM AUSWECHSELN DIESER BAUTEILE MÜSSEN IMMER DIE VORGESCHRIEBENEN TEILE VERWENDET WERDEN,UM DIE SICHERHEIT SOWIE DIE LEISTUNG DES GERÄTES AUFRECHTZUERHALTEN.

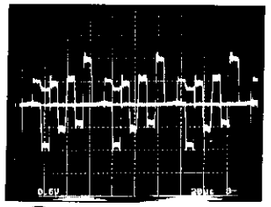

① 0.5V/div, 20μsec/div

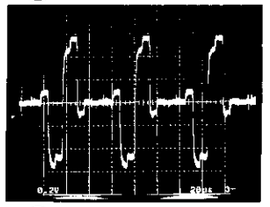

② 0.2V/div, 20μsec/div

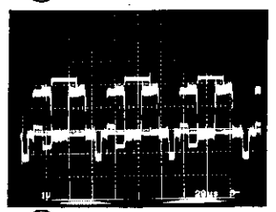

③ 0.2V/div, 20μsec/div

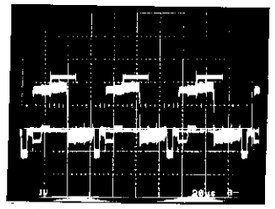

④ 50mV/div, 20μsec/div

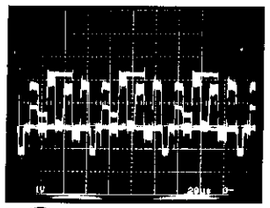

⑤ 0.2V/div, 20μsec/div (SECAM)

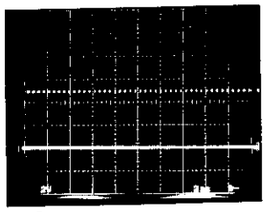

⑤ 0.5V/div, 20μsec/div (NTSC)

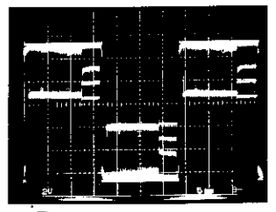

⑥ 0.2V/div, 20μsec/div

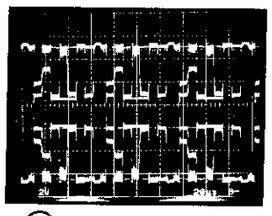

⑦ 1V/div, 20μsec/div

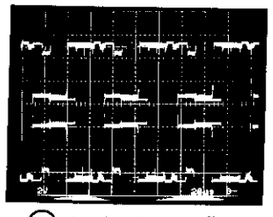

⑧ 1V/div, 20μsec/div

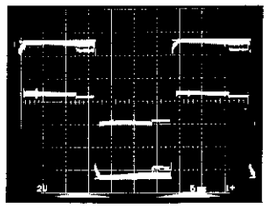

⑨ 1V/div, 20μsec/div

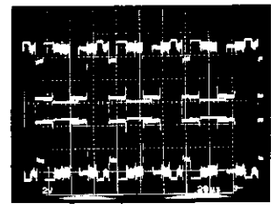

⑩ 2V/div, 2m sec/div

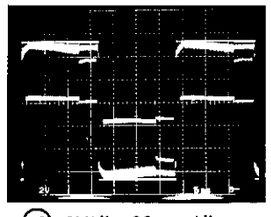

⑪ 2V/div, 20μsec/div (H-Size)

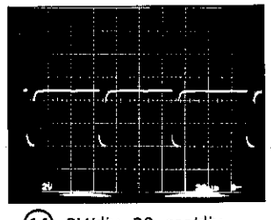

⑪ 2V/div, 5m sec/div (V-Size)

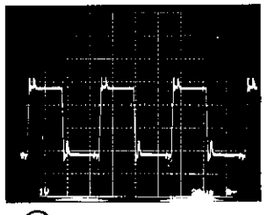

⑫ 2V/div, 20μsec/div (H-Sync)


⑫ 2V/div, 20μsec/div (V-Sync)


⑬ 2V/div, 20μsec/div (H-Sync)

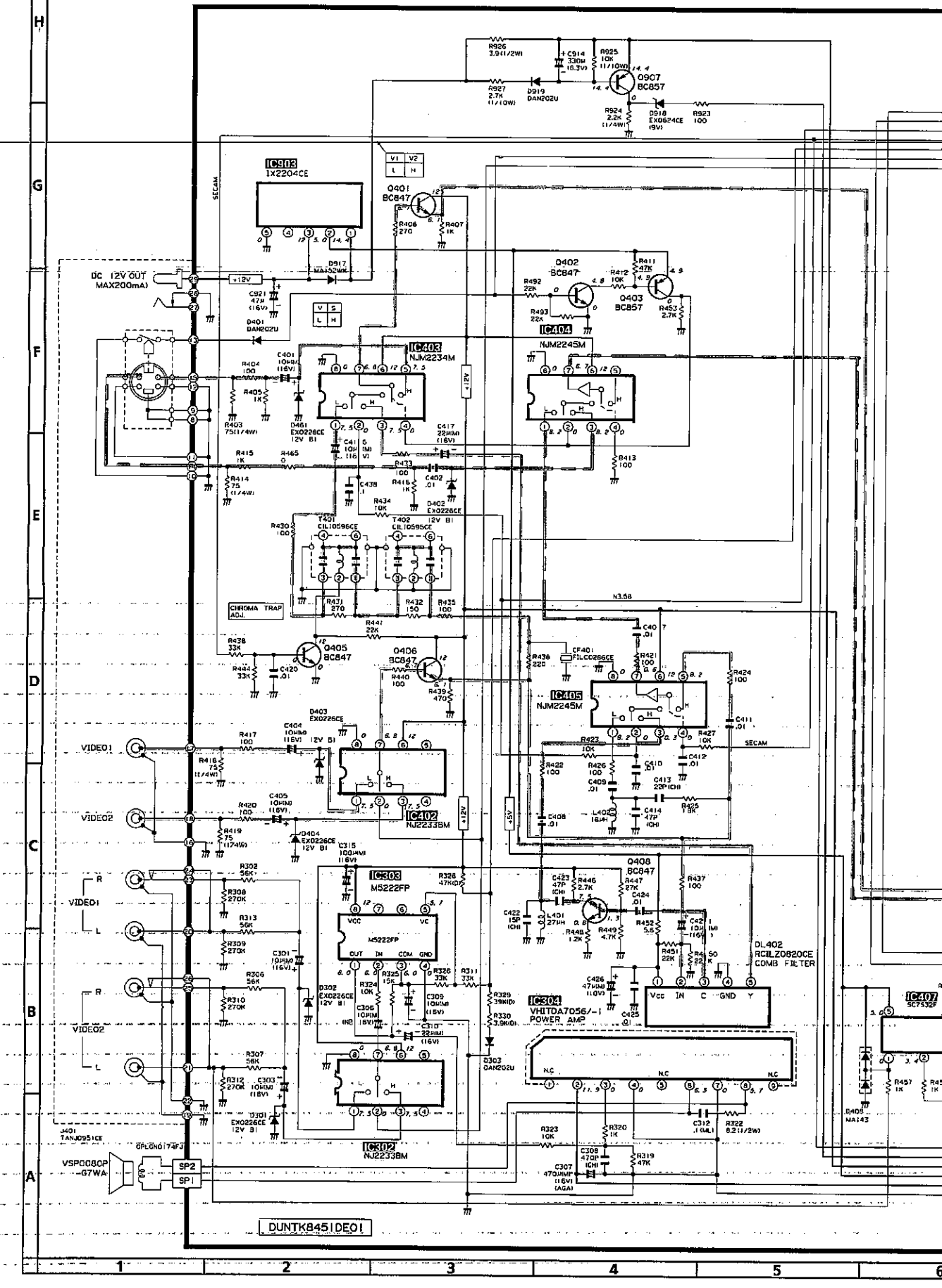

⑬ 2V/div, 20μsec/div (V-Sync)


⑭ 2V/div, 20μsec/div


⑮ 1V/div, 20μsec/div

Memo

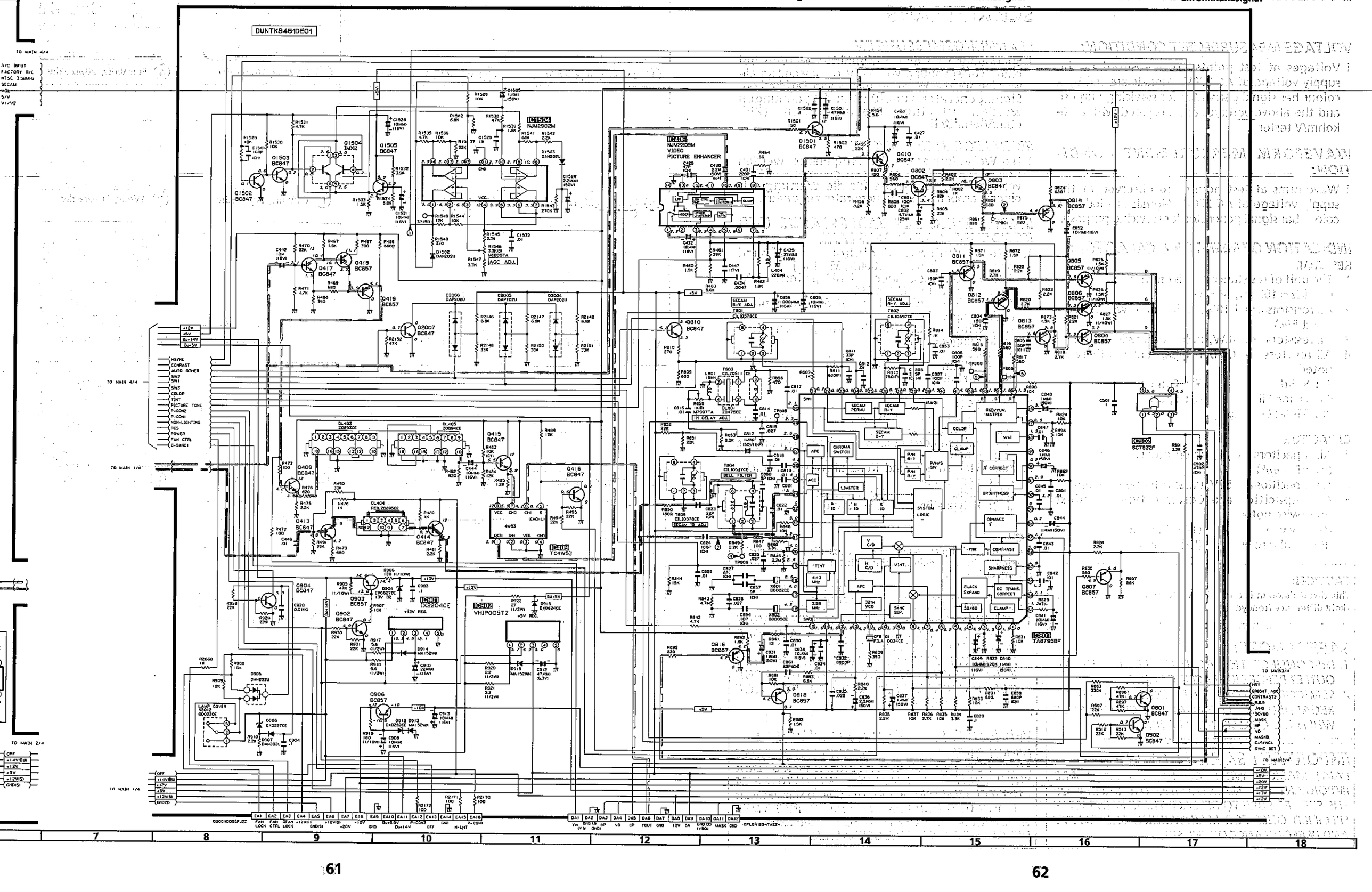
SCHEMATIC DIAGRAM: MAIN UNIT-1/
SCHEMATISCHER SCHALTPLAN: HAUPTEINHEIT-1



SCHEMATIC DIAGRAM: MAIN UNIT-2/ SCHEMATISCHER SCHALTPLAN:HAUPTEINHEIT-2

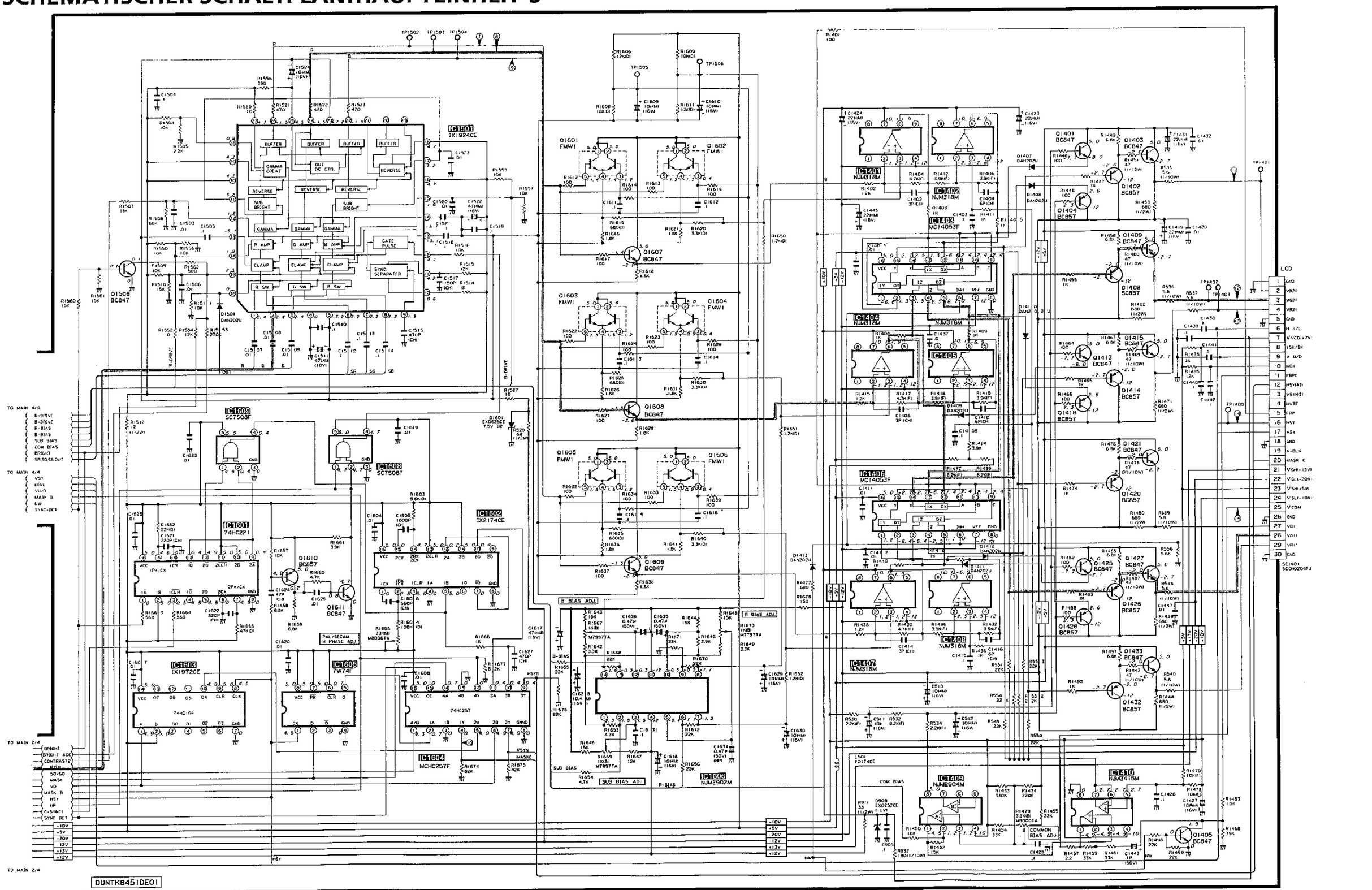
R signal/ R-Signal
Video signal/ Videosignal
G signal/ G-Signal
Luminance Signal/ Luminanzsignal
B signal/ B-Signal
Chrominance Signal/ Chrominanzsignal

DUNTK8461DE01



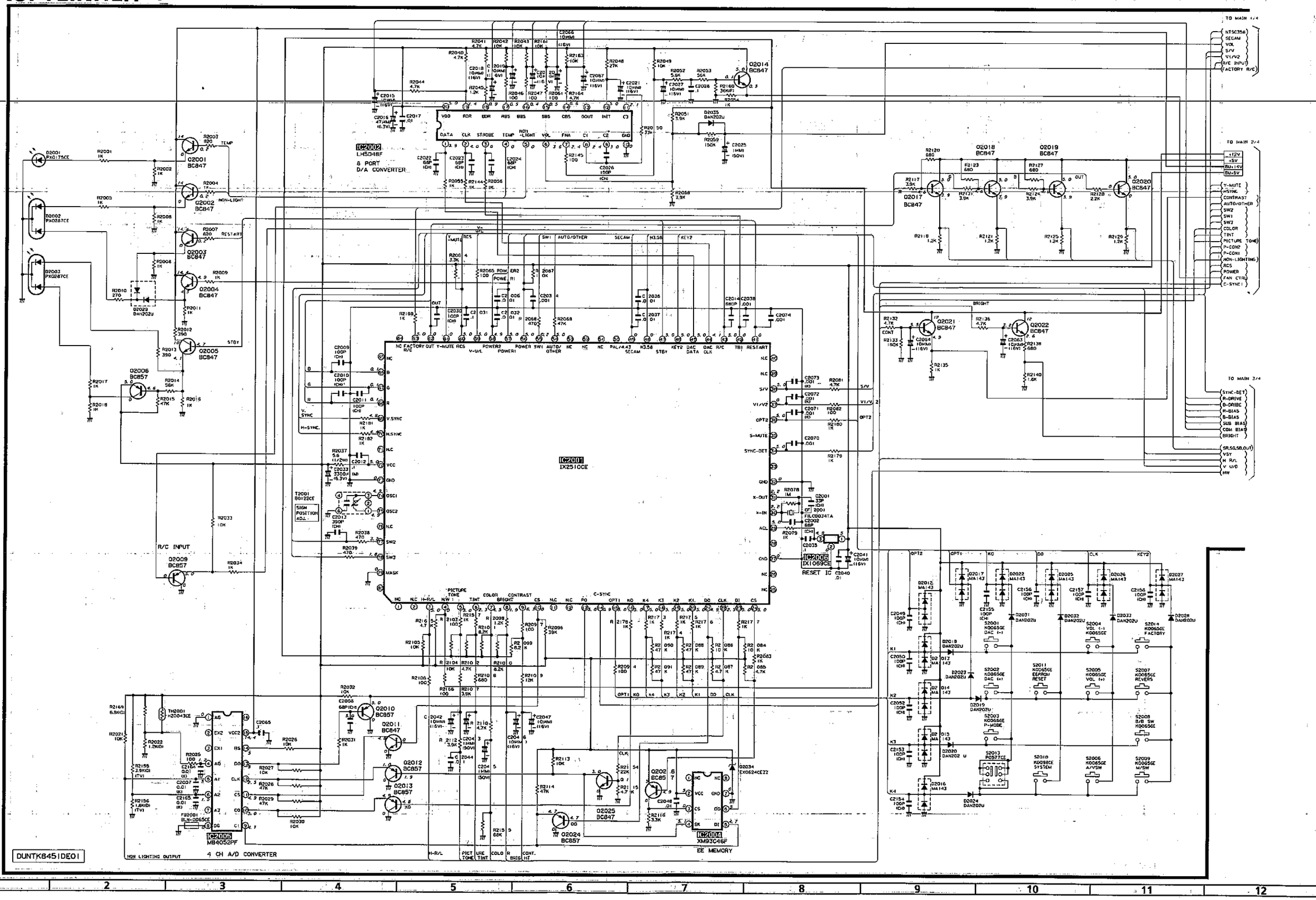
61 62

SCHEMATIC DIAGRAM: MAIN UNIT-3/
SCHEMATISCHER SCHALTPLAN:HAUPTEINHEIT-3

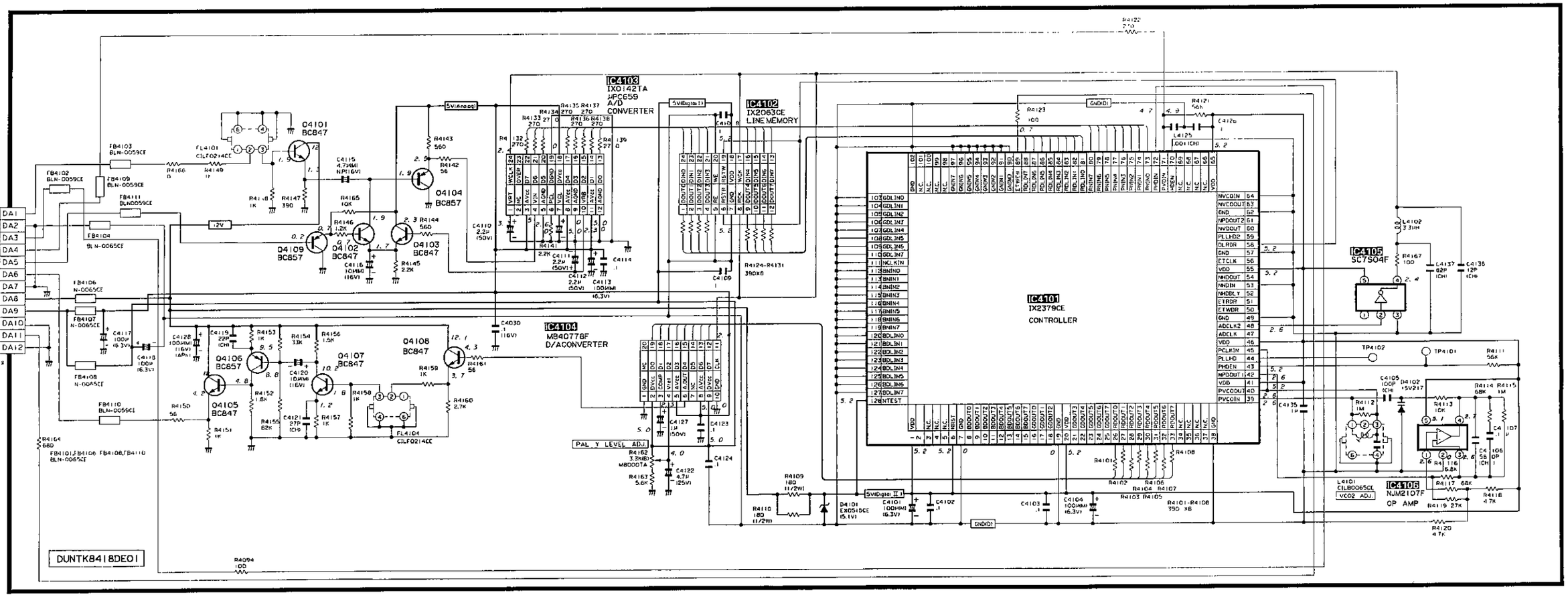


XV-315P	XV-315P

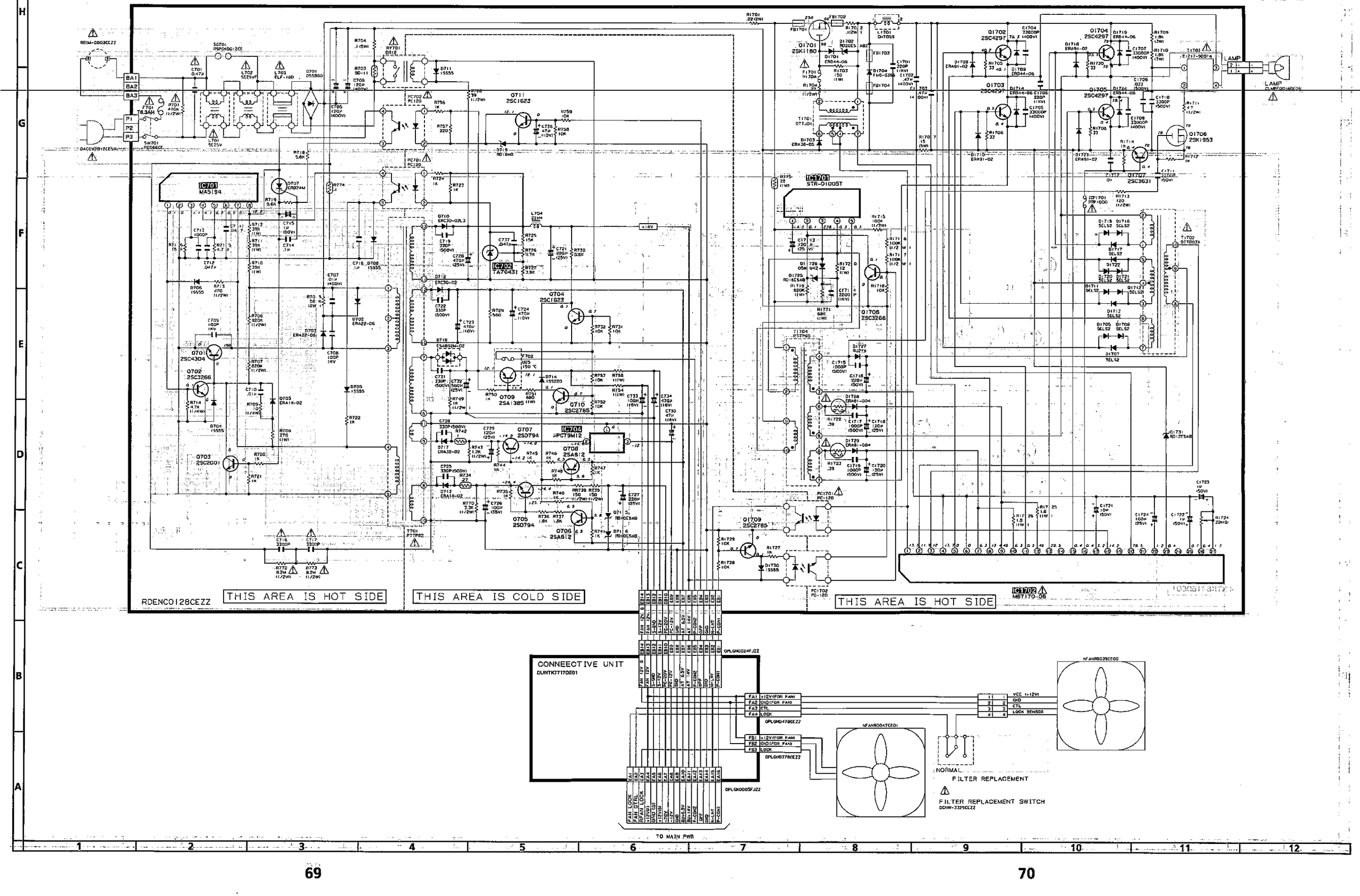
MAIN UNIT-4/
HAUPTEINHEIT-4



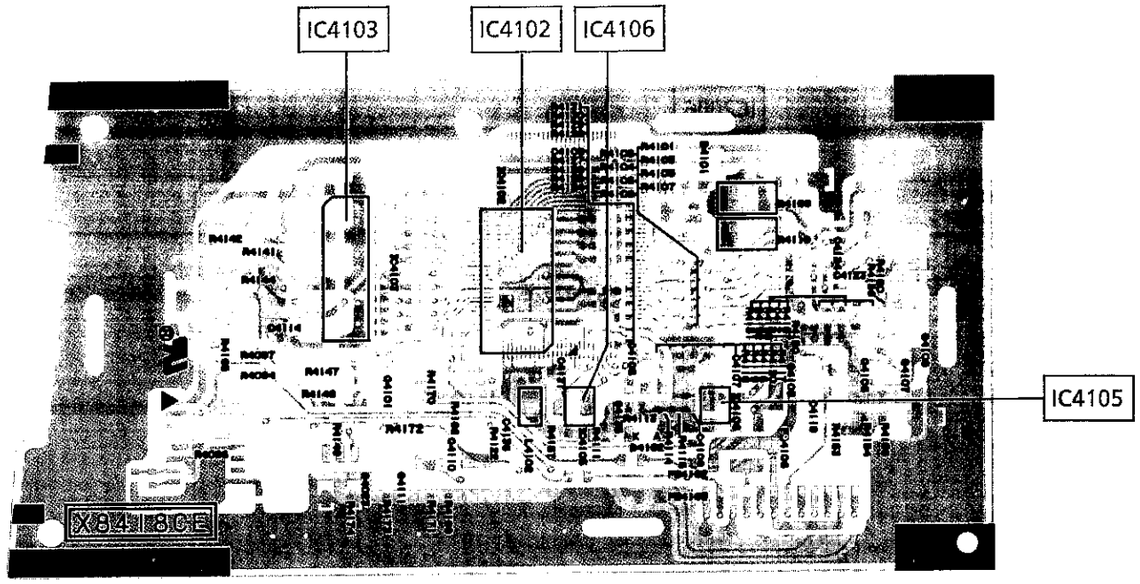
SCAN CONVERTER UNIT/ SCAN-WANDLEREINHEIT



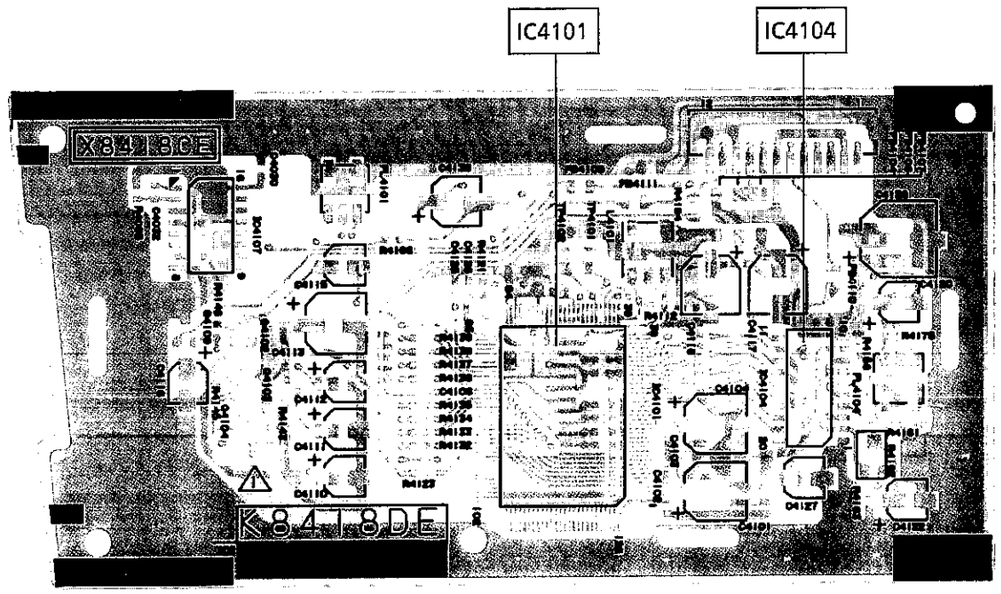
POWER/BALLAST UNIT/
NETZ/BALLAST-EINHEIT



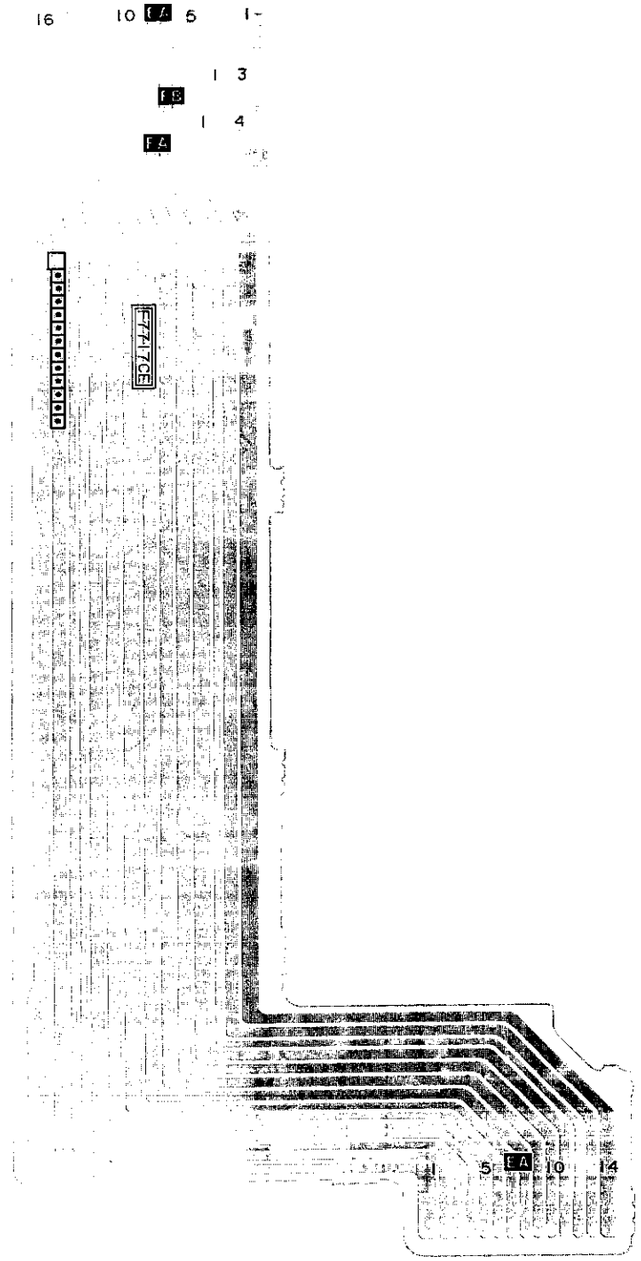
PRINTED WIRING BOARD ASSEMBLIES/ PLATINENEINHEITEN



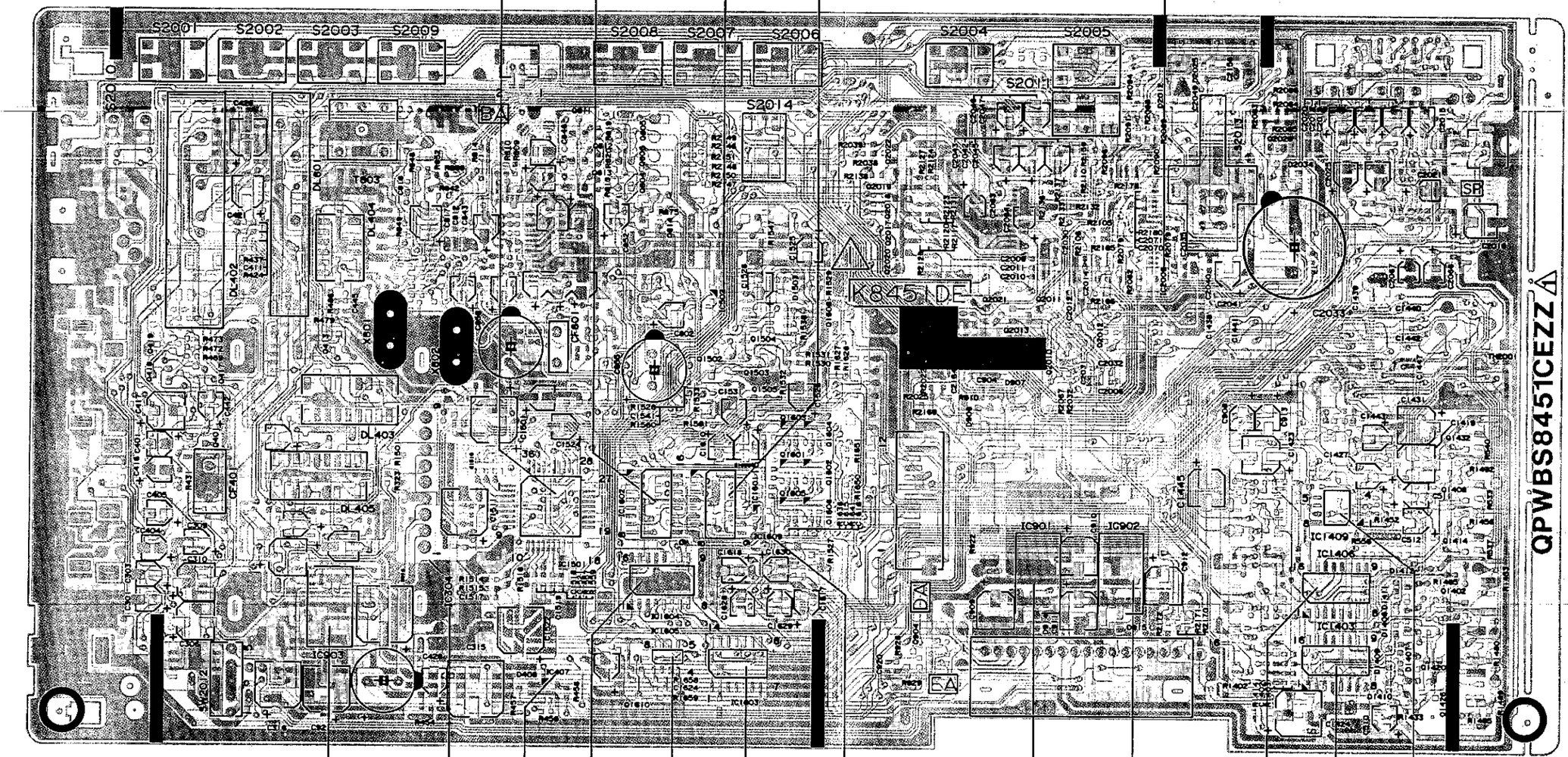
SCAN CONVERTER Unit (Component Side)/ SCAN-WANDLEREINHEIT(Komponentenseite)



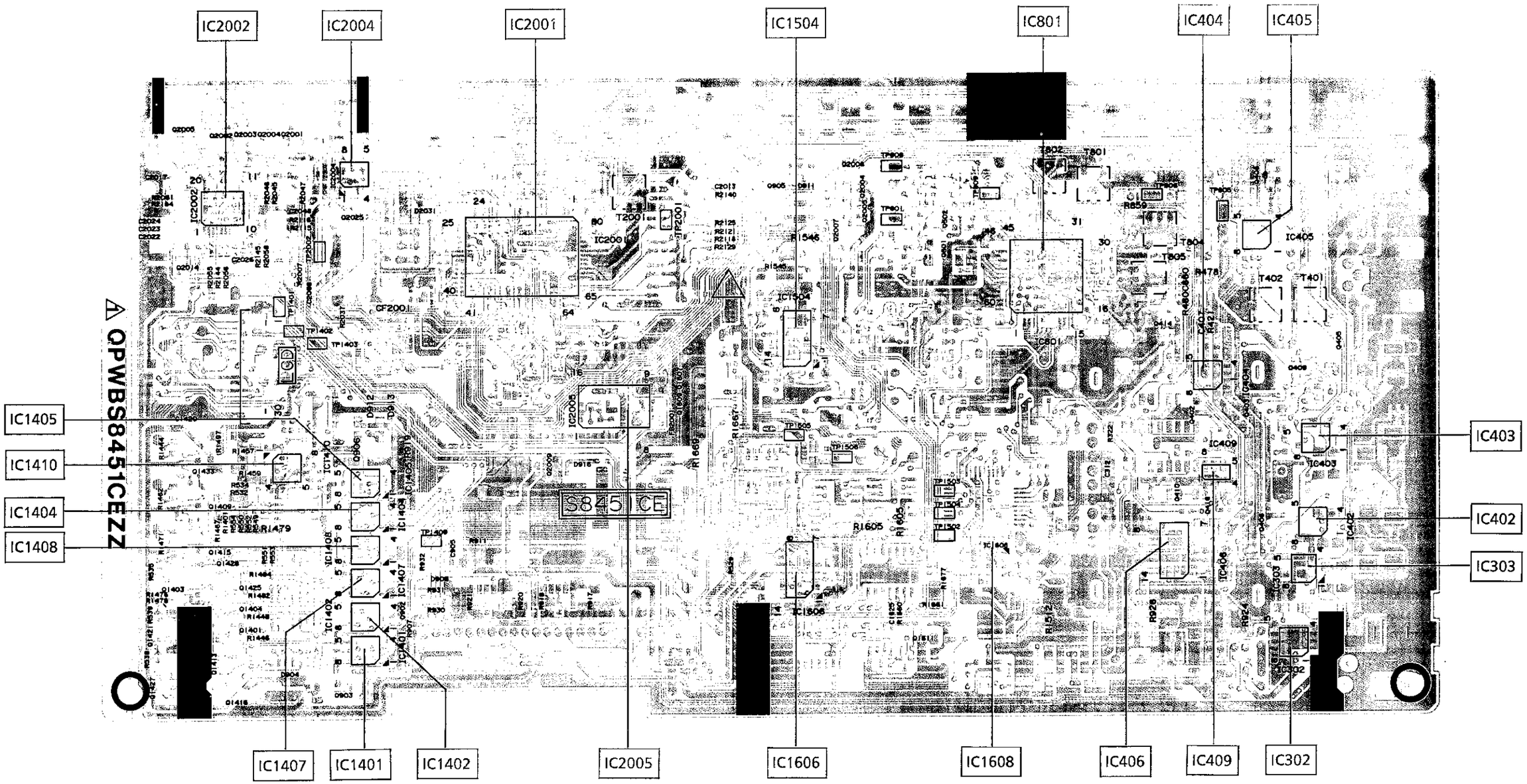
SCAN CONVERTER Unit (Wiring Side)/ SCAN-WANDLEREINHEIT(Verdrahtungsseite)



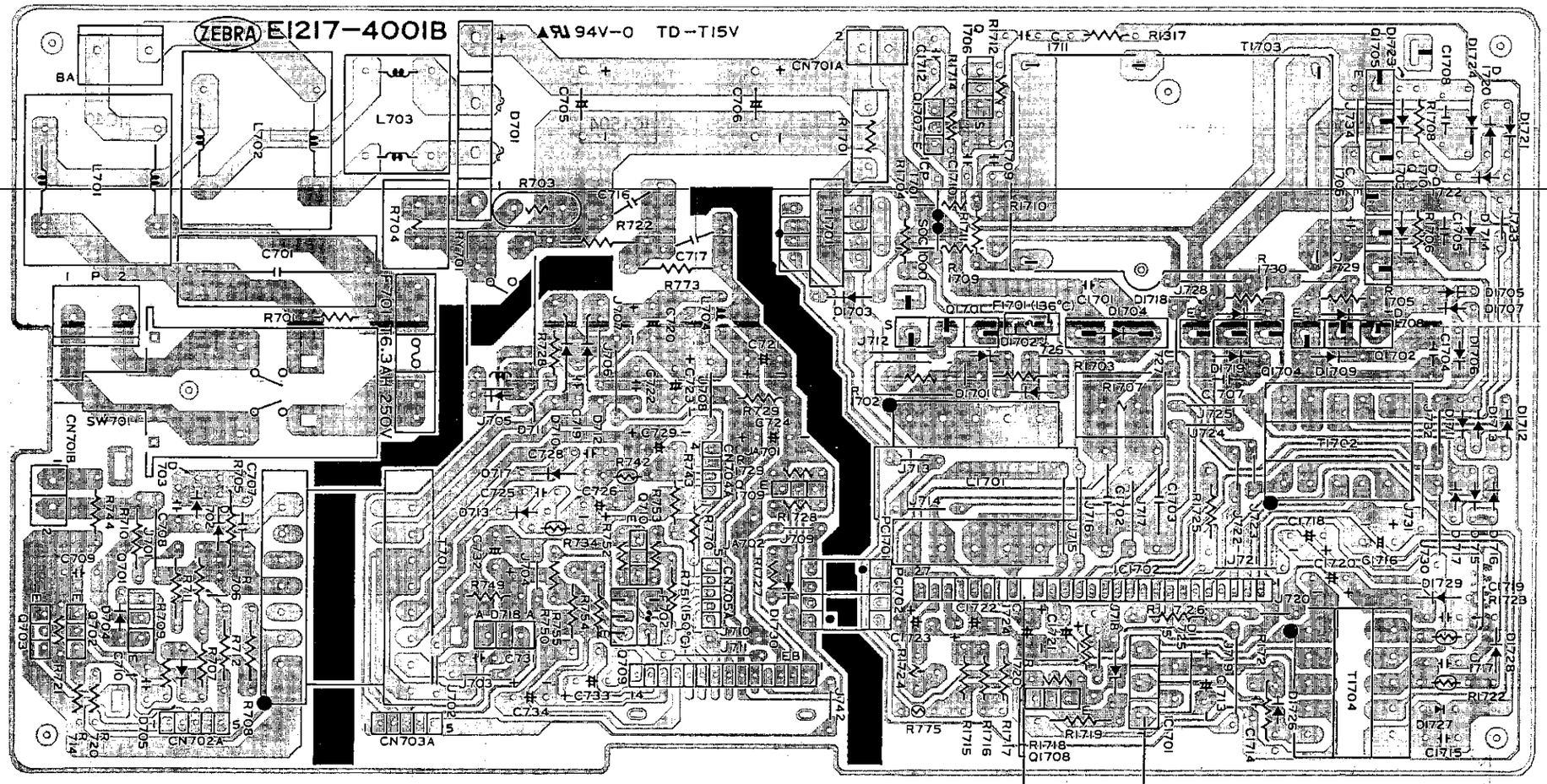
Connective Unit (Wiring Side)/ Verbindungseinheit (Verdrahtungsseite)



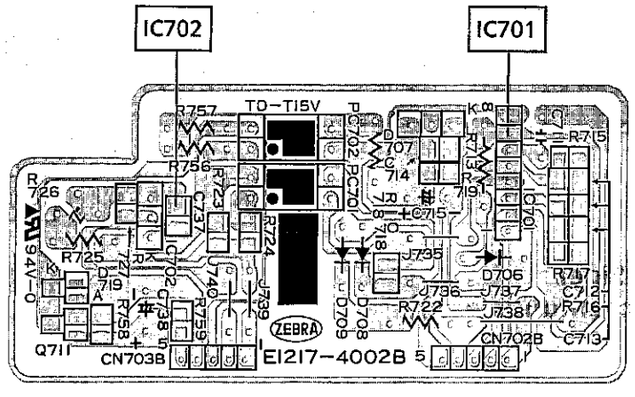
Main Unit (Component Side)/
Haupteinheit (Komponentenseite)



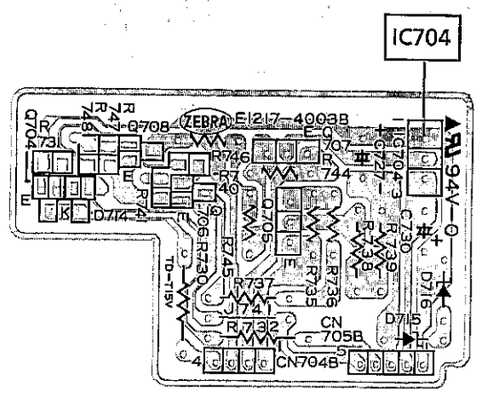
Main Unit (Wiring Side)/
Haupteinheit (Verdrahtungsseite)



Power/Ballast Unit-1 (Component Side)/
Netz/Ballasteinheit-1(Komponentenseite)

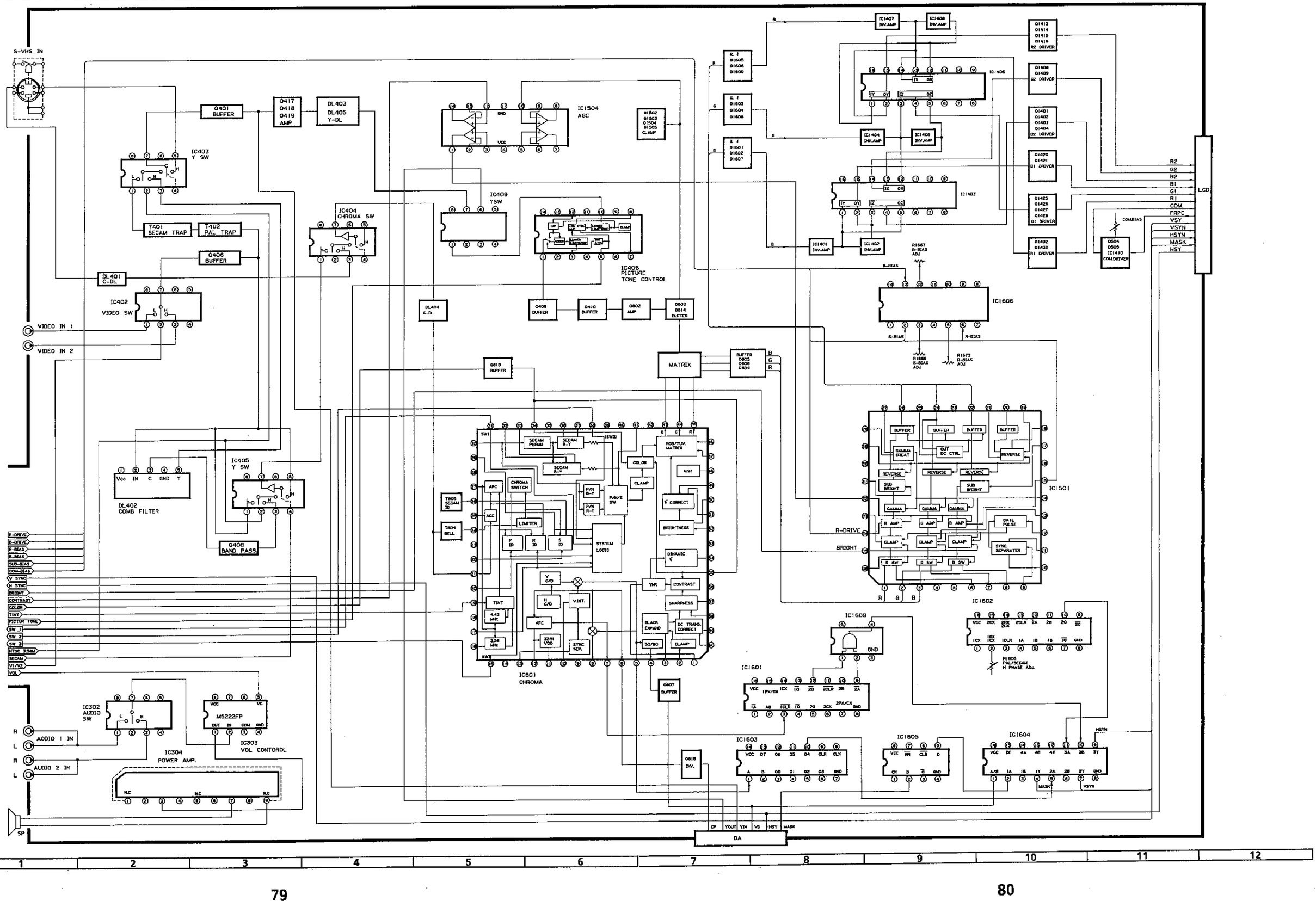


Power/Ballast Unit-2 (Component Side)/
Netz/Ballasteinheit-2(Verdrahtungsseite)

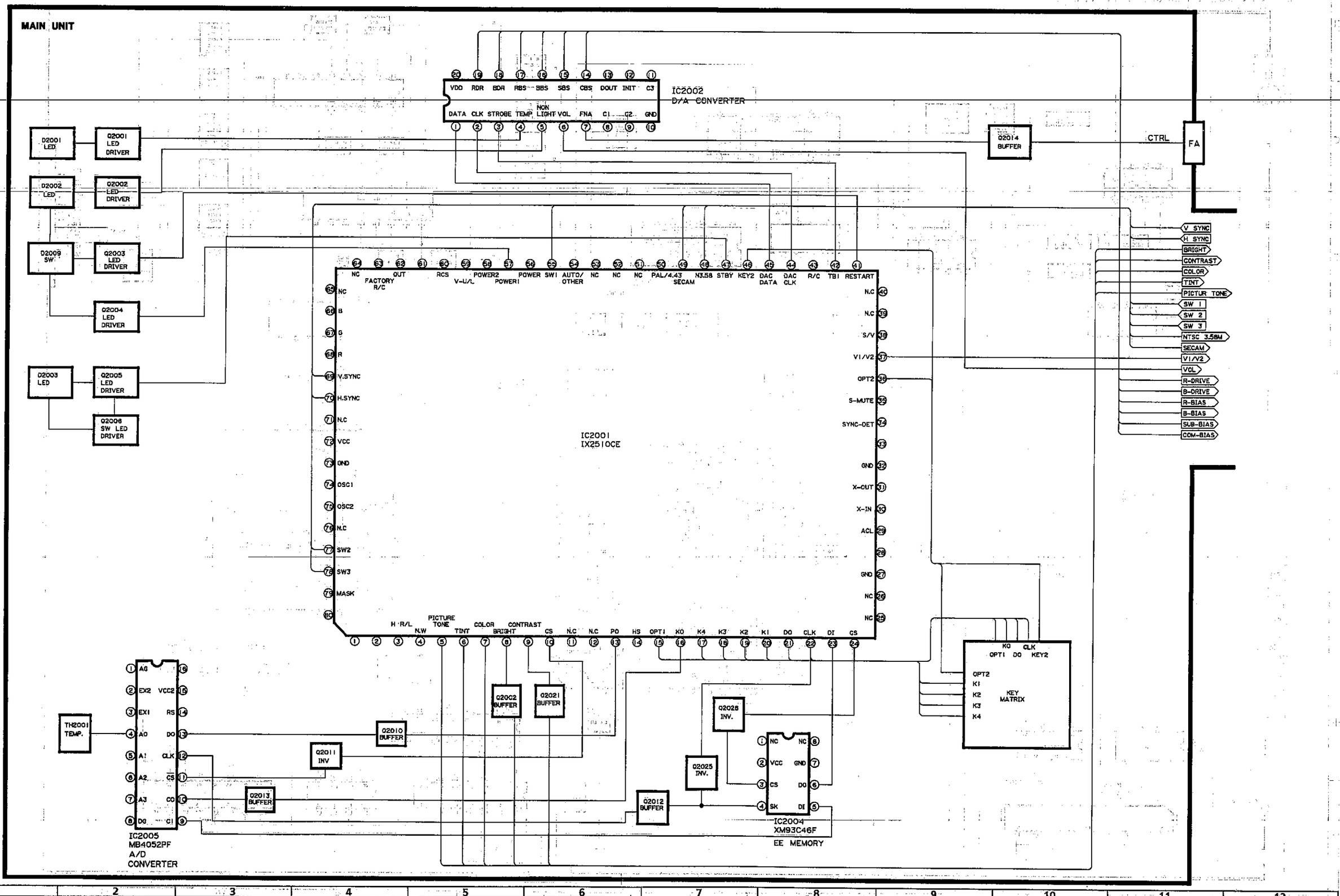


Power/Ballast Unit-3 (Component Side)/
Netz/Ballasteinheit-3(Komponentenseite)

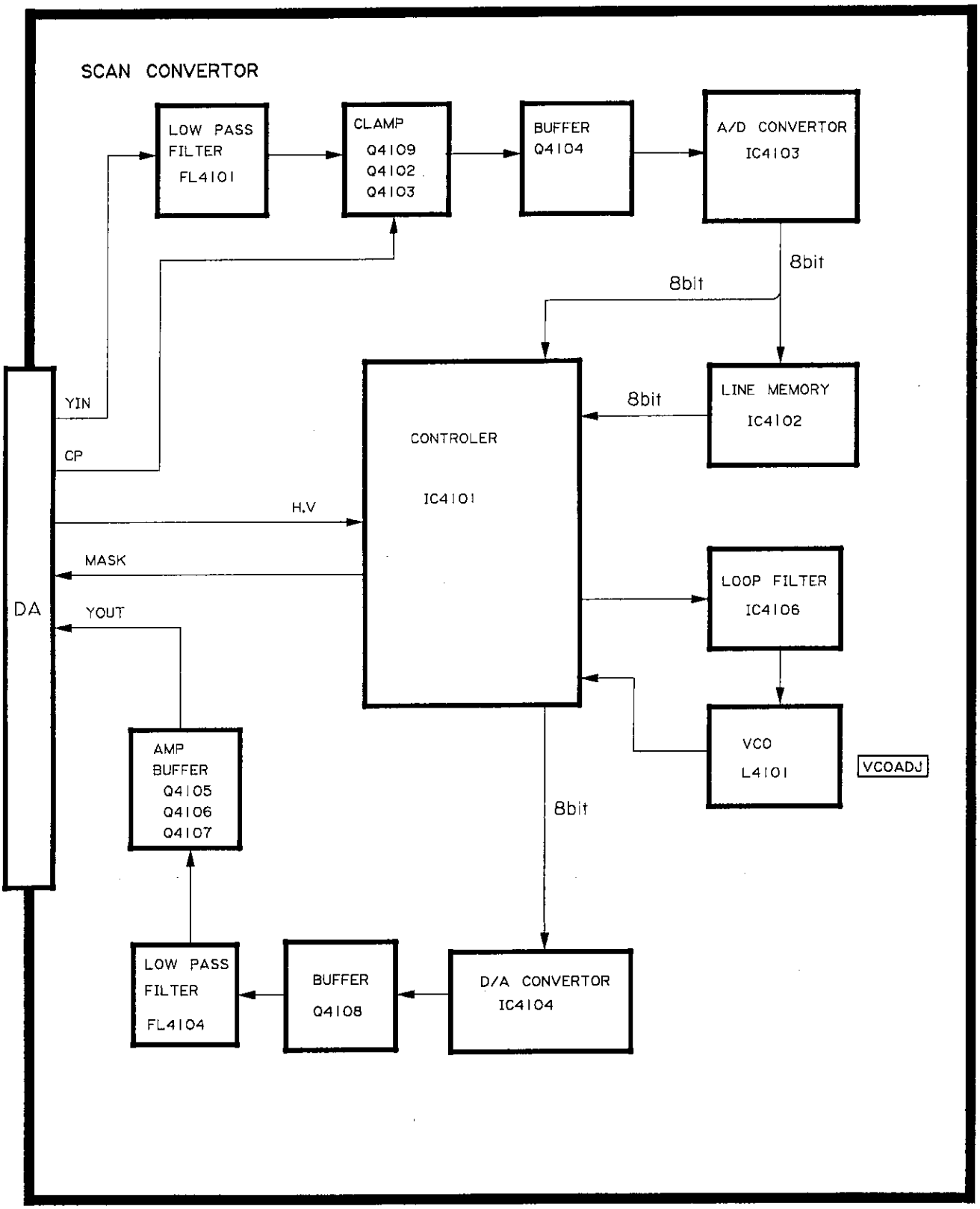
BLOCK DIAGRAM-1/
BLOCKSCHALTPLAN-1



BLOCK DIAGRAM-2/
BLOCKSCHALTPLAN-2



BLOCK DIAGRAM-3/
BLOCKSCHALTPLAN-3



PARTS LIST

PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual: electrical components having such features are identified by "⚠" in the Replacement Parts Lists.
The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION
5. CODE
6. QUANTITY

MARK ★: SPARE PARTS-DELIVERY SECTION.

ERSATZTEILLISTE

AUSTAUSCH VON TEILEN

Ersatzteile,die besondere Sicherheitseigenschaften aufweisen,sind in dieser Anleitung markiert.Elektrische Bauteile mit solchen Eigenschaften sind in der Ersatzteilliste mit "⚠" gekennzeichnet. Die Verwendung von Ersatzteilen,die nicht die gleichen Sicherheitseigenschaften wie die vom Hersteller empfohlenen oder die in der Bedienungsanleitung angegebenen aufweisen,können Stromschläge,Brände sowie andere Gefahren mit sich ziehen.

"BESTELLEN VON ERSATZTEILEN"

Damit Ihre Bestellung prompt und korrekt ausgeführt wird,geben Sie bitte die folgenden Informationen:

1. MODELLNUMMER.
2. BEZUGSNUMMER
3. ERSATZTEIL-NR.
4. BESCHREIBUNG
5. CODE
6. STÜCKZAHL

MARKIERUNG ★: ERSATZTEILLIEFERUNG

Ref. No.	Part No.	★	Description	Code

PRINTED WIRING BOARD ASSEMBLIES
(*NOT REPLACEMENT ITEM*)

	DUNTK8451FE01	–	Main Unit	—
	DUNTK8418FE01	–	Scan Converter Unit	—
	DUNTK7717DE01	–	Connective Unit	—
	RDENC0128CEZZ	–	Power/Ballast Unit	—

—— End of P.W.B. ASSEMBLIES ——

ASSEMBLY UNITS

NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.

	RLCDP0004CEZZ	J	LCD Module Unit	DE

—— End of ASSEMBLY UNITS ——

DUNTK8451FE01
MAIN UNIT

INTEGRATED CIRCUITS

IC302	VHiNJ2233BM-1	J		AE
IC303	VHiM5222FP/-1	J		AG
IC304	VHiTDA7056/-1	J	Power Amp.	AP
IC402	VHiNJ2233BM-1	J		AE
IC403	VHiNJM2234M-1	J		AF
IC404	VHiNJM2245M-1	J		AF
IC405	VHiNJM2245M-1	J		AF
IC406	VHiNJM2209M-1	J	Video Picture Enhancer	AG
IC407	VHiSC7S32F/-1	J		AC
IC409	VHiTC4W53F/-1	J		AE
IC502	VHiSC7S32F/-1	J		AC
IC801	VHiTA8795BF-1	J		AZ
IC901	RH-iX2204CEZZ	J		AG
IC902	VHiPQ05TZ11-1	J	+5V Regulator	AH
IC903	RH-iX2204CEZZ	J		AG
IC1401	VHiNJM318M/-1	J		AG
IC1402	VHiNJM318M/-1	J		AG
IC1403	VHiMC14053F-1	J		AD
IC1404	VHiNJM318M/-1	J		AG
IC1405	VHiNJM318M/-1	J		AG
IC1406	VHiMC14053F-1	J		AD
IC1407	VHiNJM318M/-1	J		AG
IC1408	VHiNJM318M/-1	J		AG
IC1409	VHiNJM2904M-1	J		AE
IC1410	VHiNJM3415M-1	J		AT
IC1501	RH-iX1924CEZZ	J		AP
IC1504	VHiNJM2902M-1	J		AF
IC1601	VHiTHC221AF-1	J		AG
IC1602	RH-iX2174CEZZ	J		AG
IC1603	RH-iX1972CEZZ	J		AF

Ref. No.	Part No.	★	Description	Code

DUNTK8451FE01
MAIN UNIT (Continued)

INTEGRATED CIRCUITS (Continued)

IC1604	VHiMCHC257F-1	J		AF
IC1605	VHiTC7W74F/-1	J		AE
IC1606	VHiNJM2902M-1	J		AF
IC1608	VHiSC7S08F/-1	J		AC
IC1609	VHiSC7S08F/-1	J		AC
IC2001	RH-iX2510CEZZ	J		BB
IC2002	VHiLH5048F/-1	J	8 Port D/A Converter	AK
IC2004	VHiXM93C46F-1	J	EE Memory	AH
IC2005	VHiMB4052PF-1	J	4-CH A/D Converter	AP
IC2006	RH-iX1069CEZZ	J		AE

TRANSISTORS

Q401	VSBC847B1F/-1	J	BC847	AA
Q402	VSBC847B1F/-1	J	BC847	AA
Q403	VSBC857B3F/-1	J	BC857	AA
Q405	VSBC847B1F/-1	J	BC847	AA
Q406	VSBC847B1F/-1	J	BC847	AA
Q408	VSBC847B1F/-1	J	BC847	AA
Q409	VSBC847B1F/-1	J	BC847	AA
Q410	VSBC847B1F/-1	J	BC847	AA
Q413	VSBC847B1F/-1	J	BC847	AA
Q414	VSBC847B1F/-1	J	BC847	AA
Q415	VSBC847B1F/-1	J	BC847	AA
Q416	VSBC847B1F/-1	J	BC847	AA
Q417	VSBC847B1F/-1	J	BC847	AA
Q418	VSBC857B3F/-1	J	BC857	AA
Q419	VSBC857B3F/-1	J	BC857	AA
Q502	VSBC847B1F/-1	J	BC847	AA
Q801	VSBC847B1F/-1	J	BC847	AA
Q802	VSBC847B1F/-1	J	BC847	AA
Q803	VSBC847B1F/-1	J	BC847	AA
Q804	VSBC857B3F/-1	J	BC857	AA
Q805	VSBC857B3F/-1	J	BC857	AA
Q806	VSBC857B3F/-1	J	BC857	AA
Q807	VSBC857B3F/-1	J	BC857	AA
Q810	VSBC847B1F/-1	J	BC847	AA
Q811	VSBC857B3F/-1	J	BC857	AA
Q812	VSBC857B3F/-1	J	BC857	AA
Q813	VSBC857B3F/-1	J	BC857	AA
Q814	VSBC857B3F/-1	J	BC857	AA
Q816	VSBC857B3F/-1	J	BC857	AA
Q818	VSBC857B3F/-1	J	BC857	AA
Q902	VSBC847B1F/-1	J	BC847	AA
Q903	VSBC857B3F/-1	J	BC857	AA
Q904	VSBC847B1F/-1	J	BC847	AA
Q906	VSBC857B3F/-1	J	BC857	AA
Q907	VSBC857B3F/-1	J	BC857	AA
Q1401	VSBC847B1F/-1	J	BC847	AA
Q1402	VSBC857B3F/-1	J	BC857	AA

Ref. No.	Part No.	★	Description	Code

TRANSISTORS (Continued)

Q1403	VSBC847B1F/-1	J	BC847	AA
Q1404	VSBC857B3F/-1	J	BC857	AA
Q1405	VSBC847B1F/-1	J	BC847	AA
Q1408	VSBC857B3F/-1	J	BC857	AA
Q1409	VSBC847B1F/-1	J	BC847	AA
Q1413	VSBC847B1F/-1	J	BC847	AA
Q1414	VSBC857B3F/-1	J	BC857	AA
Q1415	VSBC847B1F/-1	J	BC847	AA
Q1416	VSBC857B3F/-1	J	BC857	AA
Q1420	VSBC857B3F/-1	J	BC857	AA
Q1421	VSBC847B1F/-1	J	BC847	AA
Q1425	VSBC847B1F/-1	J	BC847	AA
Q1426	VSBC857B3F/-1	J	BC857	AA
Q1427	VSBC847B1F/-1	J	BC847	AA
Q1428	VSBC857B3F/-1	J	BC857	AA
Q1432	VSBC857B3F/-1	J	BC857	AA
Q1433	VSBC847B1F/-1	J	BC847	AA
Q1501	VSBC847B1F/-1	J	BC847	AA
Q1502	VSBC847B1F/-1	J	BC847	AA
Q1503	VSBC847B1F/-1	J	BC847	AA
Q1504	VSiMX2/////-1	J	iMX2	AB
Q1505	VSBC847B1F/-1	J	BC847	AA
Q1506	VSBC847B1F/-1	J	BC847	AA
Q1601	VSFMW1/////-1	J	FMW1	AB
Q1602	VSFMW1/////-1	J	FMW1	AB
Q1603	VSFMW1/////-1	J	FMW1	AB
Q1604	VSFMW1/////-1	J	FMW1	AB
Q1605	VSFMW1/////-1	J	FMW1	AB
Q1606	VSFMW1/////-1	J	FMW1	AB
Q1607	VSBC847B1F/-1	J	BC847	AA
Q1608	VSBC847B1F/-1	J	BC847	AA
Q1609	VSBC847B1F/-1	J	BC847	AA
Q1610	VSBC857B3F/-1	J	BC857	AA
Q1611	VSBC847B1F/-1	J	BC847	AA
Q2001	VSBC847B1F/-1	J	BC847	AA
Q2002	VSBC847B1F/-1	J	BC847	AA
Q2003	VSBC847B1F/-1	J	BC847	AA
Q2004	VSBC847B1F/-1	J	BC847	AA
Q2005	VSBC847B1F/-1	J	BC847	AA
Q2006	VSBC857B3F/-1	J	BC857	AA
Q2007	VSBC847B1F/-1	J	BC847	AA
Q2009	VSBC857B3F/-1	J	BC857	AA
Q2010	VSBC857B3F/-1	J	BC857	AA
Q2011	VSBC847B1F/-1	J	BC847	AA
Q2012	VSBC857B3F/-1	J	BC857	AA
Q2013	VSBC857B3F/-1	J	BC857	AA
Q2014	VSBC847B1F/-1	J	BC847	AA
Q2017	VSBC847B1F/-1	J	BC847	AA
Q2018	VSBC847B1F/-1	J	BC847	AA
Q2019	VSBC847B1F/-1	J	BC847	AA
Q2020	VSBC847B1F/-1	J	BC847	AA
Q2021	VSBC847B1F/-1	J	BC847	AA
Q2022	VSBC847B1F/-1	J	BC847	AA
Q2024	VSBC857B3F/-1	J	BC857	AA

Ref. No.	Part No.	★	Description	Code

PWB-A DUNTK8451FE01
MAIN UNIT (Continued)

TRANSISTORS (Continued)

Q2025	VSBC847B1F/-1	J	BC847	AA
Q2026	VSBC857B3F/-1	J	BC857	AA

DIODES

D301	RH-EX0226CEZZ	J	Zener Diode, 12V	AB
D302	RH-EX0226CEZZ	J	Zener Diode, 12V	AB
D303	VHDDAN202U/-1	J	DAN202U	AA
D401	VHDDAN202U/-1	J	DAN202U	AA
D402	RH-EX0226CEZZ	J	Zener Diode, 12V	AB
D403	RH-EX0226CEZZ	J	Zener Diode, 12V	AB
D404	RH-EX0226CEZZ	J	Zener Diode, 12V	AB
D408	VHDMA143///-1	J	MA143	AB
D461	RH-EX0226CEZZ	J	Zener Diode, 12V	AB
D904	RH-EX0627CEZZ	J	Zener Diode	AB
D905	VHDDAN202U/-1	J	DAN202U	AA
D906	RH-EX0227CEZZ	J	Zener Diode	AB
D907	VHDDAN202U/-1	J	DAN202U	AA
D908	RH-EX0252CEZZ	J	Zener Diode	AB
D912	RH-EX0252CEZZ	J	Zener Diode	AB
D913	VHDMA152WK/-1	J		AA
D914	VHDMA152WK/-1	J		AA
D915	VHDMA152WK/-1	J		AA
D916	RH-EX0624CEZZ	J	Zener Diode	AB
D917	VHDMA152WK/-1	J		AA
D918	RH-EX0624CEZZ	J	Zener Diode, 9V	AB
D919	VHDDAN202U/-1	J	DAN202U	AA
D1407	VHDDAN202U/-1	J	DAN202U	AA
D1408	VHDDAN202U/-1	J	DAN202U	AA
D1409	VHDDAN202U/-1	J	DAN202U	AA
D1410	VHDDAN202U/-1	J	DAN202U	AA
D1411	VHDDAN202U/-1	J	DAN202U	AA
D1412	VHDDAN202U/-1	J	DAN202U	AA
D1413	VHDDAN202U/-1	J	DAN202U	AA
D1501	VHDDAN202U/-1	J	DAN202U	AA
D1502	VHDDAN202U/-1	J	DAN202U	AA
D1503	VHDDAN202U/-1	J	DAN202U	AA
D1601	RH-EX0625CEZZ	J	Zener Diode	AB
D2001	RH-PX0175CEZZ	J	LED,	AB
D2002	RH-PX0287CEZZ	J	LED,	AC
D2003	RH-PX0287CEZZ	J	LED,	AC
D2004	VHDDAP202U/-1	J	DAP202U	AA
D2005	VHDDAP202U/-1	J	DAP202U	AA
D2006	VHDDAP202U/-1	J	DAP202U	AA
D2012	VHDMA143///-1	J	MA143	AB
D2013	VHDMA143///-1	J	MA143	AB
D2014	VHDMA143///-1	J	MA143	AB
D2015	VHDMA143///-1	J	MA143	AB
D2016	VHDMA143///-1	J	MA143	AB
D2017	VHDMA143///-1	J	MA143	AB

Ref. No.	Part No.	★	Description	Code

DIODES (Continued)

D2018	VHDDAN202U/-1	J	DAN202U	AA
D2019	VHDDAN202U/-1	J	DAN202U	AA
D2020	VHDDAN202U/-1	J	DAN202U	AA
D2022	VHDMA143///-1	J	MA143	AB
D2023	VHDDAN202U/-1	J	DAN202U	AA
D2024	VHDDAN202U/-1	J	DAN202U	AA
D2025	VHDMA143///-1	J	MA143	AB
D2026	VHDMA143///-1	J	MA143	AB
D2027	VHDMA143///-1	J	MA143	AB
D2028	VHDDAN202U/-1	J	DAN202U	AA
D2029	VHDDAN202U/-1	J	DAN202U	AA
D2031	VHDDAN202U/-1	J	DAN202U	AA
D2032	VHDDAN202U/-1	J	DAN202U	AA
D2033	VHDDAN202U/-1	J	DAN202U	AA
D2034	RH-EX0624CEZZ	J	Zener Diode, 9V	AB
D2035	VHDDAN202U/-1	J	DAN202U	AA
TH2001	RH-HZ0043CEZZ	J	Thermistor	AF

PACKAGED CIRCUITS

X801	RCRSB0002CEZZ	J	Crystal	AM
X802	RCRSB0005CEZZ	J	Crystal	AN

COIL AND TRANSFORMERS

CF401	RFiLC0286CEZZ	J	Ceramic Filter	AE
CF801	RFiLA0034CEZZ	J	Ceramic Filter	AD
CF2001	RFiLC0034TAZZ	J	Ceramic Filter	AD
DL402	RCiLZ0820CEZZ	J	Delay Line	AT
DL403	RCiLZ0893CEZZ	J	Delay Line	AM
DL404	RCiLZ0895CEZZ	J	Delay Line	AK
DL405	RCiLZ0894CEZZ	J	Delay Line	AM
DL801	RCiLZ0475CEZZ	J	Delay Line	AP
L401	VP-1M270K3R8N	J	Coil, 27μH	AC
L402	VP-1M180K2R5N	J	Coil, 18μH	AC
L404	VP-1M221J170N	J	Coil, 220μH	AB
L501	RCiLF0174CEZZ	J	Coil, 33μH	AC
L801	VP-1M150K2R2N	J	Coil, 15μH	AC
T401	RCiLi0596CEZZ	J	IF Coil	AG
T402	RCiLi0595CEZZ	J	IF Coil	AG
T801	RCiLi0578CEZZ	J	SECAN B-Y Adj.	AH
T802	RCiLi0597CEZZ	J	SECAN R-Y Adj.	AH
T803	RCiLZ0511CEZZ	J	1H DL Adj.	AD
T804	RCiLi0577CEZZ	J	Bell Filter	AH
T805	RCiLi0578CEZZ	J	SECAM ID Adj.	AH
T2001	RCiLB0122CEZZ	J	Sign Psition Adj.	AF

DUNTK8451FE01
MAIN UNIT (Continued)

CONTROLS

Ref. No.	Part No.	★	Description		Code
R859	RVR-M7997TAZZ	J	1k(B)		AC
R1667	RVR-M7997TAZZ	J	1k(B)	Blue Bias Adj.	AC
R1669	RVR-M7997TAZZ	J	1k(B)	Sub Bias Adj.	AC
R1673	RVR-M7997TAZZ	J	1k(B)	Red Bias Adj.	AC
R1479	RVR-M8000TAZZ	J	3.3k(B)		AB
R1546	RVR-M8000TAZZ	J	3.3k(B)	AGC Adj.	AB
R1605	RVR-M8006TAZZ	J	4.7k(B)		AC

CAPACITORS

Ref. No.	Part No.	★				Code
C301	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C303	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C306	VCE9PF1CW106M	J	10	16V	Elect. (N.P)	AC
C307	VCEAGA1CW477M	J	470	16V	Electrolytic	AC
C308	VCCCCY1HH471J	J	470p	50V	Ceramic	AA
C309	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C310	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C312	VCFYEC1CM104J	J	0.1	16V	M. Polyester	AD
C315	VCEAPK1CN107M	J	100	16V	Electrolytic	AD
C401	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C402	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C404	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C405	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C407	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C408	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C409	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C410	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C411	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C412	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C413	VCCCCY1HH220J	J	22p	50V	Ceramic	AA
C414	VCCCCY1HH470J	J	47p	50V	Ceramic	AA
C416	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C417	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C420	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C421	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C422	VCCCCY1HH150J	J	15p	50V	Ceramic	AA
C423	VCCCCY1HH470J	J	47p	50V	Ceramic	AA
C424	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C425	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C426	VCEAPF1AW476M	J	47	10V	Electrolytic	AB
C427	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C428	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C429	VCCCCY1HH470J	J	47p	50V	Ceramic	AA
C430	VCE9PF1HW225M	J	2.2	50V	Elect. (N.P)	AC
C431	VCCCCY1HH221J	J	220p	50V	Ceramic	AA
C432	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C434	VCKYCY1HB472K	J	4700p	50V	Ceramic	AA
C435	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C438	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C442	VCEAPH1CW106M	J	10	16V	Electrolytic	AB

CAPACITORS (Continued)

Ref. No.	Part No.	★				Code
C444	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C446	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C447	VCKYTV1CF105Z	J	1	16V	Ceramic	AA
C501	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C502	VCCCCY1HH471J	J	470P	50V	Ceramic	AA
C510	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C511	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C512	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C801	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C802	VCEAPH1EW475M	J	4.7	25V	Electrolytic	AB
C803	VCCCCY1HH151J	J	150p	50V	Ceramic	AA
C804	VCCCCY1HH151J	J	150p	50V	Ceramic	AA
C805	VCCCCY1HH151J	J	150p	50V	Ceramic	AA
C806	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C807	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C808	VCCCCY1HH390J	J	39p	50V	Ceramic	AA
C809	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C811	VCCCCY1HH330J	J	33p	50V	Ceramic	AA
C812	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C813	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C814	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C815	VCKYCY1CB273K	J	0.027	16V	Ceramic	AA
C816	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C817	VCE9PF1HW105M	J	1	50V	Elect. (N.P)	AC
C818	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C819	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C821	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C822	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C823	VCCCCY1HH220J	J	22p	50V	Ceramic	AA
C824	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C825	VCKYCY1CB273K	J	0.027	16V	Ceramic	AA
C826	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C827	VCCCCY1HH6R0D	J	6p	50V	Ceramic	AA
C828	VCKYCY1CB273K	J	0.027	16V	Ceramic	AA
C830	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C831	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C832	VCKYCY1HB682K	J	6800p	50V	Ceramic	AA
C834	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C835	VCKYCY1EB223K	J	0.022	25V	Ceramic	AA
C836	VCEAPH1HW225M	J	2.2	50V	lectrolytic	AB
C837	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C838	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C839	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C840	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C841	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C842	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C843	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C844	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C845	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C846	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C847	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C848	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C849	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C851	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA

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MAIN UNIT (Continued)

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description			Code
C852	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C853	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C854	VCCCCY1HH100D	J	10p	50V	Ceramic	AA
C856	VCEAGA1AW108M	J	1000	10V	Electrolytic	AC
C857	VCCCCY1HH5R0C	J	5p	50V	Ceramic	AA
C858	VCCCCY1EH681J	J	680p	25V	Ceramic	
C860	VCCCCY1HH5R0C	J	5p	50V	Ceramic	AA
C861	VCCCCY1HH820J	J	82p	50V	Ceramic	AA
C903	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C904	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C905	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C908	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C910	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C912	VCEAPF0JW476M	J	47	6.3V	Electrolytic	AB
C913	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C914	RC-EZ0363CEZZ	J			Electrolytic	AC
C920	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C921	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C1402	VCCCCY1HH3R0C	J	3p	50V	Ceramic	AA
C1403	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1404	VCCCCY1HH6R0D	J	6p	50V	Ceramic	AA
C1405	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1408	VCCCCY1HH3R0C	J	3p	50V	Ceramic	AA
C1409	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1410	VCCCCY1HH6R0D	J	6p	50V	Ceramic	AA
C1411	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1412	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1414	VCCCCY1HH3R0C	J	3p	50V	Ceramic	AA
C1415	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1416	VCCCCY1HH6R0D	J	6p	50V	Ceramic	AA
C1419	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C1420	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1423	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C1424	VCEAPF1VW226M	J	22	35V	Electrolytic	AB
C1426	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1427	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C1428	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1431	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C1432	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1437	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1438	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1439	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1440	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1441	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1442	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1443	VCEAPF1HW104M	J	0.1	50V	Electrolytic	AB
C1445	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C1447	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1501	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C1502	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1503	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description			Code
C1504	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1505	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1506	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1507	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1508	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1509	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1510	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1511	VCEAPF1AW476M	J	47	10V	Electrolytic	AB
C1512	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1513	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1514	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1515	VCCCCY1HH471J	J	470P	50V	Ceramic	AA
C1517	VCCCCY1HH151J	J	150p	50V	Ceramic	AA
C1518	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1519	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1520	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1521	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1522	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C1523	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1524	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C1525	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C1526	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C1528	VCEAPH1HW225M	J	2.2	50V	lectrolytic	AB
C1529	VCKYTV1CE105Z	J	1	16V	Ceramic	AA
C1531	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C1532	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1541	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C1604	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1605	VCCCCY1EH102J	J	1000p	25V	Ceramic	AB
C1606	VCCCCY1EH561J	J	560p	25V	Ceramic	AA
C1607	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1608	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1609	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C1610	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C1611	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1612	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1613	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1614	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1615	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1616	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1617	VCEAGA1CW476M	J	47	16V	Electrolytic	AB
C1618	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C1619	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1620	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1621	VCCCCY1HH221J	J	220p	50V	Ceramic	AA
C1622	VCCCCY1EH821J	J	820p	25V	Ceramic	AB
C1623	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1624	VCCCCY1HH470J	J	47p	50V	Ceramic	AA
C1625	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1626	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C1627	VCCCCY1HH471J	J	470P	50V	Ceramic	AA
C1628	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C1629	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C1630	VCEAPH1CW106M	J	10	16V	Electrolytic	AB

Ref. No.	Part No.	★	Description	Code

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MAIN UNIT (Continued)

CAPACITORS (Continued)

C1631	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C1634	VCE9GA1HW474M	J	0.47	50V	Elect. (N.P)	AB
C1635	VCEAGA1HW474M	J	0.47	50V	Electrolytic	AA
C1636	VCEAGA1HW474M	J	0.47	50V	Electrolytic	AA
C2001	VCCCCY1HH330J	J	33p	50V	Ceramic	AA
C2002	VCCCCY1HH680J	J	68p	50V	Ceramic	AA
C2006	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2007	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C2008	VCCCCY1HH680J	J	68p	50V	Ceramic	AA
C2009	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2010	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2011	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2012	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C2013	VCCCCY1HH391J	J	390p	50V	Ceramic	AA
C2014	VCKYCY1HB681K	J	680p	50V	Ceramic	AA
C2015	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2016	VCEAPF0JW476M	J	47	6.3V	Electrolytic	AB
C2017	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C2018	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2019	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2020	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2021	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2022	VCCCCY1HH680J	J	68p	50V	Ceramic	AA
C2023	VCCCCY1HH680J	J	68p	50V	Ceramic	AA
C2024	VCCCCY1HH680J	J	68p	50V	Ceramic	AA
C2025	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C2026	VCCCCY1HH151J	J	150p	50V	Ceramic	AA
C2027	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2028	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C2030	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2031	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C2032	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2033	VCEA2H0JW338M	J	3300	6.3V	Electrolytic	AE
C2034	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2035	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C2036	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2037	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2038	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2040	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C2041	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2042	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2043	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C2044	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C2045	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C2046	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2047	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2048	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C2049	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2050	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2051	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2052	VCCCCY1HH101J	J	100p	50V	Ceramic	AA

Ref. No.	Part No.	★	Description	Code

CAPACITORS (Continued)

C2063	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2064	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2065	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C2066	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2067	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C2153	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2154	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2155	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2156	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2157	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2158	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C2164	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C2165	VCKYCY1EB103K	J	0.01	25V	Ceramic	AA
C2070	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2071	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2072	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2073	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA
C2074	VCKYCY1HB102K	J	1000p	50V	Ceramic	AA

RESISTORS

R302	VRS-CY1JF563J	J	56k	1/16W	Metal Oxide	AA
R306	VRS-CY1JF563J	J	56k	1/16W	Metal Oxide	AA
R307	VRS-CY1JF563J	J	56k	1/16W	Metal Oxide	AA
R308	VRS-CY1JF274J	J	270k	1/16W	Metal Oxide	AA
R309	VRS-CY1JF274J	J	270k	1/16W	Metal Oxide	AA
R310	VRS-CY1JF274J	J	270k	1/16W	Metal Oxide	AA
R311	VRS-CY1JF333J	J	33k	1/16W	Metal Oxide	AA
R312	VRS-CY1JF274J	J	270k	1/16W	Metal Oxide	AA
R313	VRS-CY1JF563J	J	56k	1/16W	Metal Oxide	AA
R319	VRS-CY1JF473J	J	47k	1/16W	Metal Oxide	AA
R320	VRS-CY1JF102J	J	1k	1/16W	Metal Oxide	AA
R322	VRS-TX2HF8R2J	J	8.2	1/2W	Metal Oxide	AA
R323	VRS-CY1JF103J	J	10k	1/16W	Metal Oxide	AA
R324	VRS-CY1JF103J	J	10k	1/16W	Metal Oxide	AA
R325	VRS-CY1JF153J	J	15k	1/16W	Metal Oxide	AA
R326	VRS-CY1JF333J	J	33k	1/16W	Metal Oxide	AA
R328	VRN-CY1JF473D	J	47k	1/16W	Metal Oxide	AB
R329	VRN-CY1JF393D	J	39k	1/16W	Metal Oxide	AB
R330	VRN-CY1JF392D	J	3.3k	1/16W	Metal Oxide	AA
R403	VRS-TW2ED750J	J	75	1/4W	Metal Oxide	AA
R404	VRS-CY1JF101J	J	100	1/16W	Metal Oxide	AA
R405	VRS-CY1JF102J	J	1k	1/16W	Metal Oxide	AA
R406	VRS-CY1JF271J	J	270	1/16W	Metal Oxide	AA
R407	VRS-CY1JF102J	J	1k	1/16W	Metal Oxide	AA
R411	VRS-CY1JF473J	J	47k	1/16W	Metal Oxide	AA
R412	VRS-CY1JF103J	J	10k	1/16W	Metal Oxide	AA
R413	VRS-CY1JF101J	J	100	1/16W	Metal Oxide	AA
R414	VRS-TW2ED750J	J	75	1/4W	Metal Oxide	AA
R415	VRS-CY1JF102J	J	1k	1/16W	Metal Oxide	AA
R416	VRS-CY1JF102J	J	1k	1/16W	Metal Oxide	AA
R417	VRS-CY1JF101J	J	100	1/16W	Metal Oxide	AA
R418	VRS-TW2ED750J	J	75	1/4W	Metal Oxide	AA

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MAIN UNIT (Continued)

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R419	VRS-TW2ED750J		J 75 1/4W Metal Oxide	AA
R420	VRS-CY1JF101J		J 100 1/16W Metal Oxide	AA
R421	VRS-CY1JF101J		J 100 1/16W Metal Oxide	AA
R422	VRS-CY1JF101J		J 100 1/16W Metal Oxide	AA
R423	VRS-CY1JF103J		J 10k 1/16W Metal Oxide	AA
R424	VRS-CY1JF101J		J 100 1/16W Metal Oxide	AA
R425	VRS-CY1JF182J		J 1.8k 1/16W Metal Oxide	AA
R426	VRS-CY1JF101J		J 100 1/16W Metal Oxide	AA
R427	VRS-CY1JF103J		J 10k 1/16W Metal Oxide	AA
R430	VRS-CY1JF101J		J 100 1/16W Metal Oxide	AA
R431	VRS-CY1JF271J		J 270 1/16W Metal Oxide	AA
R432	VRS-CY1JF151J		J 150 1/16W Metal Oxide	AA
R433	VRS-CY1JF101J		J 100 1/16W Metal Oxide	AA
R434	VRS-CY1JF103J		J 10k 1/16W Metal Oxide	AA
R435	VRS-CY1JF101J		J 100 1/16W Metal Oxide	AA
R436	VRS-CY1JF221J		J 220 1/16W Metal Oxide	AA
R437	VRS-CY1JF101J		J 100 1/16W Metal Oxide	AA
R438	VRS-CY1JF333J		J 33k 1/16W Metal Oxide	AA
R439	VRS-CY1JF471J		J 470 1/16W Metal Oxide	AA
R440	VRS-CY1JF101J		J 100 1/16W Metal Oxide	AA
R441	VRS-CY1JF223J		J 22k 1/16W Metal Oxide	AA
R444	VRS-CY1JF333J		J 33k 1/16W Metal Oxide	AA
R446	VRS-CY1JF272J		J 2.7k 1/16W Metal Oxide	AA
R447	VRS-CY1JF273J		J 27k 1/16W Metal Oxide	AA
R448	VRS-CY1JF122J		J 1.2k 1/16W Metal Oxide	AA
R449	VRS-CY1JF472J		J 4.7k 1/16W Metal Oxide	AA
R450	VRS-CY1JF223J		J 22k 1/16W Metal Oxide	AA
R451	VRS-CY1JF223J		J 22k 1/16W Metal Oxide	AA
R452	VRS-CY1JF5R6J		J 5.6 1/16W Metal Oxide	AA
R453	VRS-CY1JF272J		J 2.7k 1/16W Metal Oxide	AA
R454	VRS-CY1JF5R6J		J 5.6 1/16W Metal Oxide	AA
R455	VRS-CY1JF223J		J 22k 1/16W Metal Oxide	AA
R456	VRS-CY1JF822J		J 8.2k 1/16W Metal Oxide	AA
R457	VRS-CY1JF102J		J 1k 1/16W Metal Oxide	AA
R458	VRS-CY1JF102J		J 1k 1/16W Metal Oxide	AA
R459	VRS-CY1JF102J		J 1k 1/16W Metal Oxide	AA
R460	VRS-CY1JF152J		J 1.5k 1/16W Metal Oxide	AA
R461	VRS-CY1JF393J		J 39k 1/16W Metal Oxide	AA
R462	VRS-CY1JF182J		J 1.8k 1/16W Metal Oxide	AA
R463	VRS-CY1JF562J		J 5.6k 1/16W Metal Oxide	AA
R464	VRS-CY1JF560J		J 56 1/16W Metal Oxide	AA
R465	VRS-CY1JF000J		J 0 1/16W Metal Oxide	AA
R467	VRS-CY1JF152J		J 1.5k 1/16W Metal Oxide	AA
R468	VRS-CY1JF391J		J 390 1/16W Metal Oxide	AA
R469	VRS-CY1JF681J		J 680 1/16W Metal Oxide	AA
R470	VRS-CY1JF223J		J 22k 1/16W Metal Oxide	AA
R471	VRS-CY1JF472J		J 4.7k 1/16W Metal Oxide	AA
R472	VRS-CY1JF101J		J 100 1/16W Metal Oxide	AA
R473	VRS-CY1JF101J		J 100 1/16W Metal Oxide	AA
R475	VRS-CY1JF222J		J 2.2k 1/16W Metal Oxide	AA
R476	VRS-CY1JF821J		J 820 1/16W Metal Oxide	AA

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R478	VRS-CY1JF102J		J 1k 1/16W Metal Oxide	AA
R479	VRS-CY1JF681J		J 680 1/16W Metal Oxide	AA
R480	VRS-CY1JF102J		J 1k 1/16W Metal Oxide	AA
R481	VRS-CY1JF222J		J 2.2k 1/16W Metal Oxide	AA
R482	VRS-CY1JF821J		J 820 1/16W Metal Oxide	AA
R483	VRS-CY1JF103J		J 10k 1/16W Metal Oxide	AA
R484	VRS-CY1JF123J		J 12k 1/16W Metal Oxide	AA
R485	VRS-CY1JF122J		J 1.2k 1/16W Metal Oxide	AA
R487	VRS-CY1JF391J		J 390 1/16W Metal Oxide	AA
R488	VRS-CY1JF681J		J 680 1/16W Metal Oxide	AA
R489	VRS-CY1JF123J		J 12k 1/16W Metal Oxide	AA
R490	VRS-CY1JF333J		J 33k 1/16W Metal Oxide	AA
R491	VRS-CY1JF223J		J 22k 1/16W Metal Oxide	AA
R492	VRS-CY1JF223J		J 22k 1/16W Metal Oxide	AA
R493	VRS-CY1JF223J		J 22k 1/16W Metal Oxide	AA
R494	VRS-CY1JF223J		J 22k 1/16W Metal Oxide	AA
R495	VRS-CY1JF223J		J 22k 1/16W Metal Oxide	AA
R501	VRS-CY1JF332J		J 3.3k 1/16W Metal Oxide	AA
R507	VRS-CY1JF223J		J 22k 1/16W Metal Oxide	AA
R512	VRS-CY1JF223J		J 22k 1/16W Metal Oxide	AA
R513	VRS-CY1JF223J		J 22k 1/16W Metal Oxide	AA
R529	VRD-RA2HF680J		J 68 1/2W Carbon	AA
R530	VRS-CY1JF222F		J 2.2k 1/16W Metal Oxide	AA
R532	VRS-CY1JF822F		J 8.2k 1/16W Metal Oxide	AA
R534	VRS-CY1JF222F		J 2.2k 1/16W Metal Oxide	AA
R535	VRS-TV1JD5R6J		J 5.6 1/10W Metal Oxide	AA
R536	VRS-TV1JD5R6J		J 5.6 1/10W Metal Oxide	AA
R537	VRS-TV1JD5R6J		J 5.6 1/10W Metal Oxide	AA
R538	VRS-TV1JD5R6J		J 5.6 1/10W Metal Oxide	AA
R539	VRS-TV1JD5R6J		J 5.6 1/10W Metal Oxide	AA
R540	VRS-TV1JD5R6J		J 5.6 1/10W Metal Oxide	AA
R549	VRS-CY1JF223J		J 22k 1/16W Metal Oxide	AA
R550	VRS-CY1JF223J		J 22k 1/16W Metal Oxide	AA
R551	VRS-CY1JF223J		J 22k 1/16W Metal Oxide	AA
R552	VRS-CY1JF223J		J 22k 1/16W Metal Oxide	AA
R553	VRS-CY1JF223J		J 22k 1/16W Metal Oxide	AA
R554	VRS-CY1JF223J		J 22k 1/16W Metal Oxide	AA
R556	VRS-CY1JF563J		J 56k 1/16W Metal Oxide	AA
R801	VRS-CY1JF681J		J 680 1/16W Metal Oxide	AA
R802	VRS-CY1JF102J		J 1k 1/16W Metal Oxide	AA
R803	VRS-CY1JF222J		J 2.2k 1/16W Metal Oxide	AA
R804	VRS-CY1JF823J		J 82k 1/16W Metal Oxide	AA
R805	VRS-CY1JF333J		J 33k 1/16W Metal Oxide	AA
R806	VRS-CY1JF561J		J 560 1/16W Metal Oxide	AA
R807	VRS-CY1JF151J		J 150 1/16W Metal Oxide	AA
R808	VRS-CY1JF821J		J 820 1/16W Metal Oxide	AA
R809	VRS-CY1JF681J		J 680 1/16W Metal Oxide	AA
R810	VRS-CY1JF771J		J 68 1/16W Metal Oxide	AA
R811	VRS-CY1JF681F		J 270 1/16W Metal Oxide	AA
R813	VRS-CY1JF751F		J 750 1/16W Metal Oxide	AA
R814	VRS-CY1JF102J		J 1k 1/16W Metal Oxide	AA
R815	VRS-CY1JF561J		J 560 1/16W Metal Oxide	AA
R816	VRS-CY1JF561J		J 560 1/16W Metal Oxide	AA
R817	VRS-CY1JF561J		J 560 1/16W Metal Oxide	AA

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MAIN UNIT (Continued)

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R818	VRS-CY1JF272J	J	2.7k 1/16W Metal Oxide	AA
R819	VRS-CY1JF272J	J	2.7k 1/16W Metal Oxide	AA
R820	VRS-CY1JF272J	J	2.7k 1/16W Metal Oxide	AA
R821	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R822	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R823	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R824	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R825	VRS-TV1JD152J	J	1.5k 1/10W Metal Oxide	AA
R826	VRS-TV1JD152J	J	1.5k 1/10W Metal Oxide	AA
R827	VRS-TV1JD152J	J	1.5k 1/10W Metal Oxide	AA
R828	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R829	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R830	VRS-CY1JF561J	J	560 1/16W Metal Oxide	AA
R831	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R832	VRS-CY1JF124J	J	120k 1/16W Metal Oxide	AA
R833	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R834	VRS-CY1JF332J	J	3.3k 1/16W Metal Oxide	AA
R835	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R836	VRS-CY1JF272J	J	2.7k 1/16W Metal Oxide	AA
R837	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R838	VRS-CY1JF225J	J	2.2M 1/16W Metal Oxide	AA
R839	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R840	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R841	VRS-CY1JF120J	J	12 1/16W Metal Oxide	AA
R842	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R843	VRS-CY1JF475J	J	4.7M 1/16W Metal Oxide	AA
R844	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA
R846	VRS-CY1JF225J	J	2.2M 1/16W Metal Oxide	AA
R847	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R848	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R849	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R850	VRS-CY1JF181J	J	180 1/16W Metal Oxide	AA
R851	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R852	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R853	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R856	VRS-CY1JF471J	J	470 1/16W Metal Oxide	AA
R857	VRS-CY1JF563J	J	56k 1/16W Metal Oxide	AA
R859	*See Controls*			
R861	VRS-CY1JF821J	J	820 1/16W Metal Oxide	AA
R862	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R863	VRS-CY1JF334J	J	330k 1/16W Metal Oxide	AA
R869	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R871	VRS-CY1JF152J	J	1.5k 1/16W Metal Oxide	AA
R872	VRS-CY1JF152J	J	1.5k 1/16W Metal Oxide	AA
R873	VRS-CY1JF152J	J	1.5k 1/16W Metal Oxide	AA
R874	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA
R875	VRS-CY1JF821J	J	820 1/16W Metal Oxide	AA
R880	VRS-CY1JF332J	J	3.3k 1/16W Metal Oxide	AA
R881	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R882	VRS-CY1JF152J	J	1.5k 1/16W Metal Oxide	AA
R883	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R890	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R891	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA
R892	VRS-CY1JF821J	J	820 1/16W Metal Oxide	AA
R893	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R896	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R897	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R898	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R905	VRS-TV1JD473J	J	47k 1/10W Metal Oxide	AA
R906	VRS-TV1JD121J	J	120 1/10W Metal Oxide	AA
R907	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R908	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R909	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R910	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R911	VRS-TX2HF330J	J	33 1/2W Metal Oxide	AA
R917	VRS-TX2HF5R6J	J	5.6 1/2W Metal Oxide	AA
R918	VRS-TX2HF5R6J	J	5.6 1/2W Metal Oxide	AA
R919	VRS-TV1JD181J	J	180 1/10W Metal Oxide	AA
R920	VRS-TX2HF2R2J	J	2.2 1/2W Metal Oxide	AB
R921	VRS-TX2HF2R2J	J	2.2 1/2W Metal Oxide	AB
R922	VRS-TX2HF270J	J	27 1/2W Metal Oxide	AB
R923	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R924	VRS-TW2ED222J	J	2.2k 1/4W Metal Oxide	AA
R925	VRS-TV1JD103J	J	10k 1/10W Metal Oxide	AA
R926	VRS-TX2HF3R9J	J	3.9 1/2W Metal Oxide	AB
R927	VRS-TV1JD272J	J	2.7k 1/10W Metal Oxide	AA
R928	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R929	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R930	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R931	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R932	VRS-TV1JD181J	J	180 1/10W Metal Oxide	AA
R1401	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1402	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R1403	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1404	VRS-CY1JF472F	J	4.7k 1/16W Metal Oxide	AA
R1405	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1406	VRS-CY1JF392F	J	3.9k 1/16W Metal Oxide	AA
R1408	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1409	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1410	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1411	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1412	VRS-CY1JF392F	J	3.9k 1/16W Metal Oxide	AA
R1413	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1415	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R1417	VRS-CY1JF472F	J	4.7k 1/16W Metal Oxide	AA
R1418	VRS-CY1JF392F	J	3.9k 1/16W Metal Oxide	AA
R1419	VRS-CY1JF392F	J	3.9k 1/16W Metal Oxide	AA
R1424	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R1428	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R1430	VRS-CY1JF472F	J	4.7k 1/16W Metal Oxide	AA
R1432	VRS-CY1JF392F	J	3.9k 1/16W Metal Oxide	AA
R1433	VRS-CY1JF334J	J	330k 1/16W Metal Oxide	AA
R1434	VRS-CY1JF224J	J	220k 1/16W Metal Oxide	AA
R1436	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1437	VRS-CY1JF822F	J	8.2k 1/16W Metal Oxide	AA

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RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R1439	VRS-CY1JF822F	J	8.2k 1/16W Metal Oxide	AA
R1442	VRS-TV1JD470J	J	47 1/10W Metal Oxide	AA
R1444	VRS-TX2HF681J	J	680 1/2W Metal Oxide	AB
R1446	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1447	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1448	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1449	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R1450	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1451	VRS-TV1JD470J	J	47 1/10W Metal Oxide	AA
R1452	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA
R1453	VRS-TX2HF681J	J	680 1/2W Metal Oxide	AB
R1454	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R1455	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1456	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1457	VRS-CY1JF2R2J	J	2.2 1/16W Metal Oxide	AA
R1458	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R1459	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R1460	VRS-TV1JD470J	J	47 1/10W Metal Oxide	AA
R1461	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R1462	VRS-TX2HF681J	J	680 1/2W Metal Oxide	AB
R1463	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1464	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1465	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1466	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1467	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R1468	VRS-CY1JF393J	J	39k 1/16W Metal Oxide	AA
R1469	VRS-TV1JD470J	J	47 1/10W Metal Oxide	AA
R1470	VRS-CY1JF103F	J	10k 1/16W Metal Oxide	AA
R1471	VRS-TX2HF681J	J	680 1/2W Metal Oxide	AB
R1472	VRS-CY1JF103F	J	10k 1/16W Metal Oxide	AA
R1478	VRS-TV1JD470J	J	47 1/16W Metal Oxide	AA
R1474	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1475	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1476	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R1477	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA
R1478	VRS-TV1JD470J	J	47 1/10W Metal Oxide	AA
R1479	*See Controls*			
R1480	VRS-TX2HF681J	J	680 1/2W Metal Oxide	AB
R1482	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1483	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1485	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R1487	VRS-TV1JD470J	J	47 1/10W Metal Oxide	AA
R1488	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1489	VRS-TX2HF681J	J	680 1/2W Metal Oxide	AB
R1492	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1495	VRS-CY1JF123J	J	12k 1/16W Metal Oxide	AA
R1496	VRS-CY1JF392F	J	3.9k 1/16W Metal Oxide	AA
R1497	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R1498	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1499	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1501	VRS-CY1JF151J	J	150 1/16W Metal Oxide	AA
R1502	VRS-CY1JF471J	J	470 1/16W Metal Oxide	AA
R1503	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R1504	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1505	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R1508	VRS-CY1JF683J	J	68k 1/16W Metal Oxide	AA
R1509	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1510	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA
R1511	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1512	VRS-TX2HF120J	J	12 1/2W Metal Oxide	AA
R1514	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1515	VRS-CY1JF123J	J	12k 1/16W Metal Oxide	AA
R1516	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1521	VRS-CY1JF471J	J	470 1/16W Metal Oxide	AA
R1522	VRS-CY1JF471J	J	470 1/16W Metal Oxide	AA
R1523	VRS-CY1JF471J	J	470 1/16W Metal Oxide	AA
R1527	VRS-CY1JF100J	J	10 1/16W Metal Oxide	AA
R1528	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1529	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1530	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1531	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R1532	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R1533	VRS-CY1JF152J	J	1.5k 1/16W Metal Oxide	AA
R1534	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R1535	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R1536	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1537	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1538	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R1539	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1541	VRS-CY1JF683J	J	68k 1/16W Metal Oxide	AA
R1542	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R1543	VRS-CY1JF274J	J	270k 1/16W Metal Oxide	AA
R1544	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1545	VRS-CY1JF332J	J	3.3k 1/16W Metal Oxide	AA
R1546	*See Controls*			
R1547	VRS-CY1JF332J	J	3.3k 1/16W Metal Oxide	AA
R1548	VRS-CY1JF331J	J	330 1/16W Metal Oxide	AA
R1549	VRS-CY1JF123J	J	12k 1/16W Metal Oxide	AA
R1550	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1552	VRS-CY1JF000J	J	0 1/16W Metal Oxide	AA
R1554	VRS-CY1JF123J	J	12k 1/16W Metal Oxide	AA
R1556	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1557	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1558	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R1559	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1560	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA
R1561	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA
R1562	VRS-CY1JF273J	J	27k 1/16W Metal Oxide	AA
R1580	VRS-CY1JF100J	J	10 1/16W Metal Oxide	AA
R1582	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R1603	VRN-CY1JF562D	J	5.6k 1/16W Metal Film	AB
R1604	VRN-CY1JF104D	J	100k 1/16W Metal Film	AB
R1605	*See Controls*			
R1606	VRN-CY1JF123D	J	12k 1/16W Metal Film	AB
R1608	VRN-CY1JF123D	J	12k 1/16W Metal Film	AB

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MAIN UNIT (Continued)

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R1609	VRN-CY1JF103D	J	10k 1/16W Metal Film	AA
R1611	VRN-CY1JF133D	J	13k 1/16W Metal Film	AB
R1612	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1613	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1614	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1615	VRN-CY1JF681D	J	680 1/16W Metal Film	AB
R1616	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1617	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1618	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1619	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1620	VRN-CY1JF332D	J	3.3k 1/16W Metal Film	AA
R1621	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1622	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1623	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1624	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1625	VRN-CY1JF681D	J	680 1/16W Metal Film	AB
R1626	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1627	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1628	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1629	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1630	VRN-CY1JF332D	J	3.3k 1/16W Metal Film	AA
R1631	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1632	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1633	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1634	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1635	VRN-CY1JF681D	J	680 1/16W Metal Film	AB
R1636	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1637	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1638	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1639	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R1640	VRN-CY1JF332D	J	3.3k 1/16W Metal Film	AA
R1641	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R1642	VRS-CY1JF332J	J	3.3k 1/16W Metal Oxide	AA
R1643	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA
R1644	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA
R1645	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R1646	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA
R1647	VRS-CY1JF123J	J	12k 1/16W Metal Oxide	AA
R1648	VRS-CY1JF153J	J	15k 1/16W Metal Oxide	AA
R1649	VRS-CY1JF332J	J	3.3k 1/16W Metal Oxide	AA
R1650	VRN-CY1JF122D	J	1.2k 1/16W Metal Film	AB
R1651	VRN-CY1JF122D	J	1.2k 1/16W Metal Film	AB
R1652	VRN-CY1JF122D	J	1.2k 1/16W Metal Film	AB
R1653	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R1654	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R1655	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1656	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1657	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R1658	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R1659	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R1660	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R1661	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R1662	VRN-CY1JF223D	J	22k 1/16W Metal Film	AA
R1663	VRS-CY1JF561J	J	560 1/16W Metal Oxide	AA
R1664	VRS-CY1JF561J	J	560 1/16W Metal Oxide	AA
R1665	VRN-CY1JF473D	J	47k 1/16W Metal Film	AB
R1666	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R1667	*See Controls*			
R1668	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1669	*See Controls*			
R1670	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1671	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1672	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R1673	*See Controls*			
R1674	VRS-CY1JF823J	J	82k 1/16W Metal Oxide	AA
R1675	VRS-CY1JF823J	J	82k 1/16W Metal Oxide	AA
R1676	VRS-CY1JF823J	J	82k 1/16W Metal Oxide	AA
R1677	VRS-CY1JF823J	J	82k 1/16W Metal Oxide	AA
R1678	VRS-CY1JF151J	J	150 1/16W Metal Oxide	AA
R2001	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2002	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2003	VRS-CY1JF821J	J	820 1/16W Metal Oxide	AA
R2004	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2005	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2006	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2007	VRS-CY1JF821J	J	820 1/16W Metal Oxide	AA
R2008	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2009	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2010	VRS-CY1JF271J	J	270 1/16W Metal Oxide	AA
R2011	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2012	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R2013	VRS-CY1JF391J	J	390 1/16W Metal Oxide	AA
R2014	VRS-CY1JF563J	J	56k 1/16W Metal Oxide	AA
R2015	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R2016	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2017	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2018	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2021	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2022	VRN-CY1JF122D	J	1.2k 1/16W Metal Film	AB
R2025	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2026	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2027	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2028	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R2029	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R2030	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2031	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2032	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2033	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2034	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2037	VRS-TX2HF5R6J	J	5.6 1/2W Metal Oxide	AA
R2038	VRS-CY1JF471J	J	470 1/16W Metal Oxide	AA
R2039	VRS-CY1JF471J	J	470 1/16W Metal Oxide	AA
R2040	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2041	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2042	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA

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MAIN UNIT (Continued)

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R2043	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2044	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2045	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R2046	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2047	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2048	VRS-CY1JF273J	J	27k 1/16W Metal Oxide	AA
R2049	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2050	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R2051	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R2052	VRS-CY1JF562J	J	5.6k 1/16W Metal Oxide	AA
R2053	VRS-CY1JF563J	J	56k 1/16W Metal Oxide	AA
R2054	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2055	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2056	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2058	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R2059	VRS-CY1JF154J	J	150k 1/16W Metal Oxide	AA
R2060	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2061	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2064	VRS-CY1JF332J	J	3.3k 1/16W Metal Oxide	AA
R2065	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2067	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2068	VRS-CY1JF471J	J	470 1/16W Metal Oxide	AA
R2069	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R2078	VRS-CY1JF105J	J	1M 1/16W Metal Oxide	AA
R2079	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2081	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2082	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2083	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2084	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2085	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2086	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2087	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2088	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R2089	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R2090	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R2091	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R2094	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2096	VRS-CY1JF393J	J	39k 1/16W Metal Oxide	AA
R2097	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2098	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R2099	VRS-CY1JF822J	J	8.2k 1/16W Metal Oxide	AA
R2100	VRS-CY1JF822J	J	8.2k 1/16W Metal Oxide	AA
R2101	VRS-CY1JF822J	J	8.2k 1/16W Metal Oxide	AA
R2102	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2103	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2104	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2105	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2106	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2107	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R2108	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA
R2109	VRS-CY1JF123J	J	12k 1/16W Metal Oxide	AA
R2110	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2112	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R2113	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2114	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R2115	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2116	VRS-CY1JF332J	J	3.3k 1/16W Metal Oxide	AA
R2117	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R2118	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R2120	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA
R2121	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R2123	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA
R2124	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R2125	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R2127	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA
R2128	VRS-CY1JF222J	J	2.2k 1/16W Metal Oxide	AA
R2129	VRS-CY1JF122J	J	1.2k 1/16W Metal Oxide	AA
R2131	VRS-CY1JF392J	J	3.9k 1/16W Metal Oxide	AA
R2132	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2133	VRS-CY1JF184J	J	180k 1/16W Metal Oxide	AA
R2135	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2136	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2138	VRS-CY1JF681J	J	680 1/16W Metal Oxide	AA
R2140	VRS-CY1JF182J	J	1.8k 1/16W Metal Oxide	AA
R2144	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2145	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2146	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R2147	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R2148	VRS-CY1JF682J	J	6.8k 1/16W Metal Oxide	AA
R2149	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R2150	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R2151	VRS-CY1JF333J	J	33k 1/16W Metal Oxide	AA
R2152	VRS-CY1JF473J	J	47k 1/16W Metal Oxide	AA
R2154	VRS-CY1JF223J	J	22k 1/16W Metal Oxide	AA
R2155	VRN-TV1JD392D	J	3.9k 1/10W Metal Film	AA
R2156	VRN-TV1JD162D	J	1.6k 1/10W Metal Film	AA
R2157	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2159	VRS-CY1JF683J	J	68k 1/16W Metal Oxide	AA
R2160	VRS-TV1JD363F	J	36k 1/10W Metal Oxide	AA
R2161	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2163	VRS-CY1JF103J	J	10k 1/16W Metal Oxide	AA
R2164	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2165	VRS-CY1JF472J	J	4.7k 1/16W Metal Oxide	AA
R2166	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2168	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2169	VRN-CY1JF682D	J	6.8k 1/16W Metal Film	AA
R2170	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2171	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2172	VRS-CY1JF101J	J	100 1/16W Metal Oxide	AA
R2173	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2174	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2175	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2176	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2177	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2178	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code

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MAIN UNIT (Continued)

RESISTORS (Continued)

R2179	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2180	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2181	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA
R2182	VRS-CY1JF102J	J	1k 1/16W Metal Oxide	AA

SWITCHES

S2001	QSW-K0065GEZZ	J	DAC(−)	AC
S2002	QSW-K0065GEZZ	J	DAC(+)	AC
S2003	QSW-K0065GEZZ	J	Picture Mode	AC
S2004	QSW-K0065GEZZ	J	Volume(−)	AC
S2005	QSW-K0065GEZZ	J	Volume(+)	AC
S2006	QSW-K0065GEZZ	J	A/V	AC
S2007	QSW-K0065GEZZ	J	Revers	AC
S2008	QSW-K0065GEZZ	J	Blue Back	AC
S2009	QSW-K0065GEZZ	J	M	AC
S2010	QSW-K0098CEZZ	J	System	AC
S2011	QSW-K0065GEZZ	J	E^2P ROM RESET	AC
S2012	QSW-B0022CEZZ	J	Lamp Cover	AE
S2013	QSW-P0577CEZZ	J		AE
S2014	QSW-K0065GEZZ	J	Factory Switch	AC

MISCELLANEOUS PARTS

FB2001	RBLN-0065CEZZ	J	Ferrite Bead	AB
	QCNW-3837CEZZ	J	Connecting Wire	AL
	QPLGN0174FJZZ	J	Plug, (SP)	AC
	QPLGN1264TAZZ	J	Plug 12-pin, (DA)	AE
	QSOCN0005FJZZ	J	Socket	AF
	QSOCN0206FJZZ	J	Socket 30-pin FCC	AF
	QTANJ0951CEZZ	J	AV JACK	AT

—— End of MAIN UNIT ——

Ref. No.	Part No.	★	Description	Code

DUNTK8418FE01
SCAN CONVERTER UNIT

INTEGRATED CIRCUITS

IC4101	RH-iX2379CEZZ	J	Controller	AY
IC4102	RH-iX2063CEZZ	J	Line Memory, UPD42102G-3	AV
IC4103	RH-iX0142TAZZ	J	A/D Converter, UPC659G	AU
IC4104	VHiMB40778F-1	J	D/A Converter	AN
IC4105	VHiSC7S04F/-1	J		AC
IC4106	VHiNJM2107F-1	J	OP Amp.	AE

TRANSISTORS

Q4101	VSBC847B1F/-1	J	BC847	AA
Q4102	VSBC847B1F/-1	J	BC847	AA
Q4103	VSBC847B1F/-1	J	BC847	AA
Q4104	VSBC857B3F/-1	J	BC857	AA
Q4105	VSBC847B1F/-1	J	BC847	AA
Q4106	VSBC857B3F/-1	J	BC857	AA
Q4107	VSBC847B1F/-1	J	BC847	AA
Q4108	VSBC847B1F/-1	J	BC847	AA
Q4109	VSBC857B3F/-1	J	BC857	AA

DIODES

D4101	RH-EX0515CEZZ	J	Zener Diode, 5.1V	AB
D4102	VHD1SV217//-1	J	1SV217	AB

COILS

FL4101	RCiLF0214CEZZ	J	Coil, Filter	AF
FL4104	RCiLF0214CEZZ	J	Coil, Filter	AF
L4101	RCiLB0065CEZZ	J	Coil, VCO2 Adj.	AG
L4102	VP-1M3R3JR93N	J	Coil, 3.3μH	AB

CONTROL

R4162	RVR-M8000TAZZ	J	3.3k(B) PAL Y Level	AB

CAPACITORS

C4030	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4101	VCEAPF0JW107M	J	100	6.3V	Electrolytic	AC
C4102	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4103	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4104	VCEAPF0JW107M	J	100	6.3V	Electrolytic	AC
C4105	VCCCCY1HH101J	J	100p	50V	Ceramic	AA
C4106	VCCCCY1EH561J	J	560p	25V	Ceramic	AA
C4107	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4108	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4109	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4110	VCEAPF1HW225M	J	2.2	50V	Electrolytic	AB
C4111	VCEAPF1HW225M	J	2.2	50V	Electrolytic	AB
C4112	VCEAPF1HW225M	J	2.2	50V	Electrolytic	AB
C4113	VCEAPF0JW107M	J	100	6.3V	Electrolytic	AC

Ref. No.	Part No.	★	Description	Code

DUNTK8418FE01
SCAN CONVERTER UNIT (Continued)

CAPACITORS (Continued)

C4114	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4115	VCE9PF1CW475M	J	4.7	16V	Elect. (N.P)	AC
C4116	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C4117	VCEAPF0JW107M	J	100	6.3V	Electrolytic	AC
C4118	VCEAPF0JW107M	J	100	6.3V	Electrolytic	AC
C4119	VCCCCY1HH220J	J	22p	50V	Ceramic	AA
C4120	VCEAPH1CW106M	J	10	16V	Electrolytic	AB
C4121	VCCCCY1HH270J	J	27p	50V	Ceramic	AA
C4122	VCEAPH1EW475M	J	4.7	25V	Electrolytic	AB
C4123	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4124	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4125	VCCCCY1EH102J	J	1000p	25V	Ceramic	AB
C4126	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4127	VCEAPH1HW105M	J	1	50V	Electrolytic	AB
C4128	VCEAPK1CN107M	J	100	16V	Electrolytic	AD
C4135	VCKYCY1CF104Z	J	0.1	16V	Ceramic	AA
C4136	VCCCCY1HH120J	J	12p	50V	Ceramic	AA
C4137	VCCCCY1HH820J	J	82p	50V	Ceramic	AA

RESISTORS

R4094	VRS-CY1JF101J	J	100	1/16W	Metal Oxide	AA
R4101	VRS-CY1JF391J	J	390	1/16W	Metal Oxide	AA
R4102	VRS-CY1JF391J	J	390	1/16W	Metal Oxide	AA
R4103	VRS-CY1JF391J	J	390	1/16W	Metal Oxide	AA
R4104	VRS-CY1JF391J	J	390	1/16W	Metal Oxide	AA
R4105	VRS-CY1JF391J	J	390	1/16W	Metal Oxide	AA
R4106	VRS-CY1JF391J	J	390	1/16W	Metal Oxide	AA
R4107	VRS-CY1JF391J	J	390	1/16W	Metal Oxide	AA
R4108	VRS-CY1JF391J	J	390	1/16W	Metal Oxide	AA
R4109	VRS-TX2HF181J	J	180	1/2W	Metal Oxide	AA
R4110	VRS-TX2HF181J	J	180	1/2W	Metal Oxide	AA
R4111	VRS-CY1JF563J	J	56k	1/16W	Metal Oxide	AA
R4112	VRS-CY1JF105J	J	1M	1/16W	Metal Oxide	AA
R4113	VRS-CY1JF103J	J	10k	1/16W	Metal Oxide	AA
R4114	VRS-CY1JF683J	J	68k	1/16W	Metal Oxide	AA
R4115	VRS-CY1JF105J	J	1M	1/16W	Metal Oxide	AA
R4116	VRS-CY1JF682J	J	6.8k	1/16W	Metal Oxide	AA
R4117	VRS-CY1JF683J	J	68k	1/16W	Metal Oxide	AA
R4118	VRS-CY1JF472J	J	4.7k	1/16W	Metal Oxide	AA
R4119	VRS-CY1JF273J	J	27k	1/16W	Metal Oxide	A
R4120	VRS-CY1JF472J	J	4.7k	1/16W	Metal Oxide	AA
R4121	VRS-CY1JF563J	J	56k	1/16W	Metal Oxide	AA
R4122	VRS-CY1JF271J	J	270	1/16W	Metal Oxide	AA
R4123	VRS-CY1JF101J	J	100	1/16W	Metal Oxide	AA
R4124	VRS-CY1JF391J	J	390	1/16W	Metal Oxide	AA
R4125	VRS-CY1JF391J	J	390	1/16W	Metal Oxide	AA
R4126	VRS-CY1JF391J	J	390	1/16W	Metal Oxide	AA
R4127	VRS-CY1JF391J	J	390	1/16W	Metal Oxide	AA
R4128	VRS-CY1JF391J	J	390	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code

RESISTORS (Continued)

R4129	VRS-CY1JF391J	J	390	1/16W	Metal Oxide	AA
R4130	VRS-CY1JF391J	J	390	1/16W	Metal Oxide	AA
R4131	VRS-CY1JF391J	J	390	1/16W	Metal Oxide	AA
R4132	VRS-CY1JF271J	J	270	1/16W	Metal Oxide	AA
R4133	VRS-CY1JF271J	J	270	1/16W	Metal Oxide	AA
R4134	VRS-CY1JF271J	J	270	1/16W	Metal Oxide	AA
R4135	VRS-CY1JF271J	J	270	1/16W	Metal Oxide	AA
R4136	VRS-CY1JF271J	J	270	1/16W	Metal Oxide	AA
R4137	VRS-CY1JF271J	J	270	1/16W	Metal Oxide	AA
R4138	VRS-CY1JF271J	J	270	1/16W	Metal Oxide	AA
R4139	VRS-CY1JF271J	J	270	1/16W	Metal Oxide	AA
R4141	VRS-CY1JF222J	J	2.2k	1/16W	Metal Oxide	AA
R4142	VRS-CY1JF560J	J	56	1/16W	Metal Oxide	AA
R4143	VRS-CY1JF561J	J	560	1/16W	Metal Oxide	AA
R4144	VRS-CY1JF561J	J	560	1/16W	Metal Oxide	AA
R4145	VRS-CY1JF222J	J	2.2k	1/16W	Metal Oxide	AA
R4146	VRS-CY1JF122J	J	1.2k	1/16W	Metal Oxide	AA
R4147	VRS-CY1JF391J	J	390	1/16W	Metal Oxide	AA
R4148	VRS-CY1JF102J	J	1k	1/16W	Metal Oxide	AA
R4149	VRS-CY1JF102J	J	1k	1/16W	Metal Oxide	AA
R4150	VRS-CY1JF560J	J	56	1/16W	Metal Oxide	AA
R4151	VRS-CY1JF102J	J	1k	1/16W	Metal Oxide	AA
R4152	VRS-CY1JF182J	J	1.8k	1/16W	Metal Oxide	AA
R4153	VRS-CY1JF102J	J	1k	1/16W	Metal Oxide	AA
R4154	VRS-CY1JF333J	J	33k	1/16W	Metal Oxide	AA
R4155	VRS-CY1JF823J	J	82k	1/16W	Metal Oxide	AA
R4156	VRS-CY1JF152J	J	1.5k	1/16W	Metal Oxide	AA
R4157	VRS-CY1JF102J	J	1k	1/16W	Metal Oxide	AA
R4158	VRS-CY1JF102J	J	1k	1/16W	Metal Oxide	AA
R4159	VRS-CY1JF102J	J	1k	1/16W	Metal Oxide	AA
R4160	VRS-CY1JF272J	J	2.7k	1/16W	Metal Oxide	AA
R4161	VRS-CY1JF560J	J	56	1/16W	Metal Oxide	AA
R4163	VRS-CY1JF562J	J	5.6k	1/16W	Metal Oxide	AA
R4164	VRS-CY1JF681J	J	680	1/16W	Metal Oxide	AA
R4165	VRS-CY1JF103J	J	10k	1/16W	Metal Oxide	AA
R4166	VRS-CY1JF000J	J	0	1/16W	Metal Oxide	AA
R4167	VRS-CY1JF101J	J	100	1/16W	Metal Oxide	AA

MISCELLANEOUS PARTS

FB4102	RBLN-0059CEZZ	J	Ferrite Bead	AB
FB4103	RBLN-0059CEZZ	J	Ferrite Bead	AB
FB4104	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB4106	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB4107	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB4108	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB4109	RBLN-0059CEZZ	J	Ferrite Bead	AB
FB4110	RBLN-0059CEZZ	J	Ferrite Bead	AB
FB4111	RBLN-0059CEZZ	J	Ferrite Bead	AB
	QPLGN1264TAZZ	J	Plug 12-pin, (DA)	AE

End of SCAN CONVERTER UNIT

Ref. No.	Part No.	★	Description	Code

DUNTK7717DE01
CONNECTIVE UNIT

MISCELLANEOUS PARTS

	QPLGN0005FJZZ	J	Plug 16-pin, (EA)	AD
	QPLGN0024FJZZ	J	Plug 14-pin, (EB)	AD
	QPLGN0378GEZZ	J	Plug 3-pin, (FB)	AB
	QPLGN0478GEZZ	J	Plug 4-pin, (FA)	AB

—— End of CONNECTIVE UNIT ——

Ref. No.	Part No.	★	Description	Code

RDENC0128CEZZ
POWER/BALLAST UNIT

INTEGRATED CIRCUITS

⚠	IC701	95KUCH0097ZZ	J	MA5194	AM
		or			
		95KUCH0078ZZ	J	M67209	AM
	IC702	95KUCC0043AK	J	TA76431	AE
	IC704	95KUCB0061CZ	J	μPC79M12HF-1	AG
	IC1701	95KUCZ0154ZZ	J	STR-D1005T	AP
⚠	IC1702	95KUCH0105ZZ	J	M67170-06	BC

TRANSISTORS

⚠	Q701	95KUAC0225JZ	J	2SC4304	AH
⚠	Q702	95KUAC0243AK	J	2SC3266	AC
⚠	Q703	95KUAC0020DK	J	2SC2001	AC
	Q704	95KUAY0013AK	J	2SC1623	AB
	Q705	95KUAD0030DZ	J	2SD794	AG
	Q706	95KUAY0012AK	J	2SA812	AB
	Q707	95KUAD0030DZ	J	2SD794	AG
	Q708	95KUAY0012AK	J	2SA812	AB
	Q709	95KUAA0086CZ	J	2SA1385	AG
	Q710	95KUAC0152AK	J	2SC1623	AB
	Q711	95KUAY0013AK	J	2SC1623	AB
⚠	Q1701	95KUAG0062AZ	J	2SK1180, FET	AS
	Q1702	95KUAC0240CZ	J	2SC4297	AN
	Q1703	95KUAC0240CZ	J	2SC4297	AN
	Q1704	95KUAC0240CZ	J	2SC4297	AN
	Q1705	95KUAC0240CZ	J	2SC4297	AN
	Q1706	95KUAG0102AZ	J	2SK1953, FET	AL
	Q1707	95KUAC0232AZ	J	2SC3631	AF
	Q1708	95KUAC0243AK	J	2SC3266	AC
	Q1709	95KUAC0152AK	J	2SC2785	AB

DIODES

⚠	D701	95KUBB0087DZ	J	D5SB60	AR
⚠	D702	95KUBC0169CK	J	ERA22-06	AC
⚠	D703	95KUBC0169DK	J	ERA22-08	AD
⚠	D704	95KUBA0005KZ	J	1SS55	AB
⚠	D705	95KUBC0221AK	J	ERA18-02	AC
⚠	D706	95KUBA0005KZ	J	1SS55	AB
⚠	D707	95KUDA0033DL	J	Thyristor, CR02AM	AD
⚠	D708	95KUBA0005KZ	J	1SS55	AB
⚠	D709	95KUBA0005KZ	J	1SS55	AB
	D710	95KUBC0269BB	J	ERC30-02	AC
	D711	95KUBA0005KZ	J	1SS55	AB
	D712	95KUBC0269BB	J	ERC30-02	AC
	D713	95KUBC0221AK	J	ERA18-02	AC
	D714	95KUBY0007AK	J	1SS220	AC
	D715	95KUBDAK100C	J	Zener Diode, 10V	AB
	D716	95KUBDAK100D	J	Zener Diode, 10V	AB

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POWER/BALLAST (Continued)

DIODES (Continued)

Ref. No.	Part No.	★	Description	Code
D717	95KUBC0263BK	J	ERA32-02	AC
D718	95KUBB0158AT	J	ESAB92M-02	AG
D719	95KUBXAB180C	J	Zener Diode, 18V	AC
D1701	95KUBC0078DK	J	ERB44-06	AC
D1702	95KUBDAK200C	J	Zener Diode, 20V	AB
D1703	95KUBC0165BK	J	ERA38-05	AD
D1704	95KUBB0191AZ	J	FMG-G36S	AM
D1705	95KUBC0250AK	J	5ELS2	AC
D1706	95KUBC0250AK	J	5ELS2	AC
D1707	95KUBC0250AK	J	5ELS2	AC
D1708	95KUBC0187AK	J	ERA91-02	AD
D1709	95KUBC0078DK	J	ERB44-06	AC
D1710	95KUBC0187AK	J	ERA91-02	AD
D1711	95KUBC0250AK	J	5ELS2	AC
D1712	95KUBC0250AK	J	5ELS2	AC
D1713	95KUBC0250AK	J	5ELS2	AC
D1714	95KUBC0078DK	J	ERB44-06	AC
D1715	95KUBC0250AK	J	5ELS2	AC
D1716	95KUBC0250AK	J	5ELS2	AC
D1717	95KUBC0250AK	J	5ELS2	AC
D1718	95KUBC0187AK	J	ERA91-02	AD
D1719	95KUBC0078DK	J	ERB44-06	AC
D1720	95KUBC0250AK	J	5ELS2	AC
D1721	95KUBC0250AK	J	5ELS2	AC
D1722	95KUBC0250AK	J	5ELS2	AC
D1723	95KUBC0187AK	J	ERA91-02	AD
D1724	95KUBC0078DK	J	ERB44-06	AC
D1725	95KUBDAK160C	J	Zener Diode, 16V	AC
D1726	95KUBC0248AK	J	05NU42	AC
D1727	95KUBC0204AK	J	RU2YX	AE
D1728	95KUBC0070AL	J	ERA81-004	AD
D1729	95KUBC0070AL	J	ERA81-004	AD
D1730	95KUBA0005KZ	J	1SS55	AB

PHOTO COUPLERS

Ref. No.	Part No.	★	Description	Code
⚠ PC701	95KUDC0152BB	J	PC120	AH
⚠ PC702	95KUDC0152BB	J	PC120	AH
⚠ PC1701	95KUDC0152BB	J	PC120	AH
⚠ PC1702	95KUDC0152BB	J	PC120	AH

CONTROLS

Ref. No.	Part No.	★	Description	Code
R726	95KUFBA472CX	J	4.7k	AC
R1724	95KUFBA103DB	J	10k	AC

COIL AND TRANSFORMERS

Ref. No.	Part No.	★	Description	Code
⚠ L701	95KUKZ0111ZZ	J	Choke Coil	AT
⚠ L702	95KUKZ0417ZZ	J	Filter	AT
⚠ L703	95KUKZ0292ZZ	J	Filter	AK
L704	95KUKZ0432ZZ	J	Coil, 22μH	AE
L1701	95K129695019	J	Choke Coil, CHT059	BB
⚠ T701	95K129295028	J	Trans., Power Regulator	BB
T1701	95K129615018	J	Trans., DTTJ01	AQ
⚠ T1702	95K129695016	J	Trans., DTTD03A	AW
T1703	95K348695021	J	Trans., E1217-9001A	BS
⚠ T1704	95K129695013	J	Trans., PTTP60	AW

CAPACITORS

Ref. No.	Part No.	★				Code
⚠ C701	95KUGFZ474FE	J	0.47		Film	AH
⚠ C705	95KUGBQ121CH	J	120	400V	Bloc Cap.	AP
⚠ C706	95KUGBQ121CH	J	120	400V	Bloc Cap.	AP
⚠ C707	95KUGFQ103FB	J	0.01	400V	Film	AC
⚠ C708	95KUGCU101AV	J	100p	1kV	Ceramic	AC
⚠ C709	95KUGCU101AV	J	100p	1kV	Ceramic	AC
⚠ C710	95KUGFF103BQ	J	0.01	50V	Film	AB
⚠ C711	95KUGFF473BQ	J	0.047	50V	Film	AB
⚠ C712	95KUGXAFF473	J	0.047	50V	Ceramic	AB
⚠ C713	95KUGXAEF102	J	1000p	50V	Ceramic	AA
⚠ C714	95KUGXAFF104	J	0.1	50V	Ceramic	AB
⚠ C715	95KUGAF1R0KL	J	1	50V	Electrolytic	AD
⚠ C716	95KUGCQ332AQ	J	3300p	1kV	Ceramic	AC
⚠ C717	95KUGCQ332AQ	J	3300p	1kV	Ceramic	AC
⚠ C718	95KUGXAFF104	J	0.1	50V	Ceramic	AB
C719	95KUGCS331AA	J	330p	500V	Ceramic	AC
C720	95KUGAD471PU	J	470	25V	Electrolytic	AE
C721	95KUGAD221RV	J	220	25V	Electrolytic	AD
C722	95KUGCS331AA	J	330p	500V	Ceramic	AC
C723	95KUGAB471PT	J	470	10V	Electrolytic	AC
C724	95KUGAB471RX	J	470	10V	Electrolytic	AC
C725	95KUGCS331AA	J	330p	500V	Ceramic	AC
C726	95KUGAE101RX	J	100	35V	Electrolytic	AD
C727	95KUGAD221RV	J	220	25V	Electrolytic	AD
C728	95KUGCS331AA	J	330p	500V	Ceramic	AC
C729	95KUGAD121PP	J	120	25V	Electrolytic	AD
C730	95KUGAC470RX	J	47	16V	Electrolytic	AC
C731	95KUGCS331AA	J	330p	500V	Ceramic	AC
C732	95KUGAD561PU	J	560	25V	Electroluyic	AE
C733	95KUGAC101RX	J	100	16V	Electrolytic	AD
C734	95KUGAC471RX	J	470	16V	Electrolytic	AE
C737	95KUGXAFF473	J	0.047	50V	Ceramic	AB
C738	95KUGAB470KL	J	47	10V	Electrolytic	AC
C1701	95KUGCU221BP	J	220p	1kV	Ceramic	AC
C1702	95KUGFQ474CU	J	0.47	400V	Film	AF
C1703	95KUGFQ474CU	J	0.47	400V	Film	AF
C1704	95KUGFQ333CU	J	0.033	400V	Film	AD
C1705	95KUGFQ333CU	J	0.033	400V	Film	AD
C1706	95KUGCU221AS	J	220p	1kV	Ceramic	AD
C1707	95KUGFQ333CU	J	0.033	400V	Film	AD

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POWER/BALLAST (Continued)

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description	Code
C1708	95KUGFQ333CU	J	0.033 400V Film	AD
C1709	95KUGZ0805ZZ	J	3300p 500V Ceramic	AB
C1710	95KUGZ0805ZZ	J	3300p 500V Ceramic	AB
C1711	95KUGFF222BQ	J	2200p 50V Film	AB
C1712	95KUGFF103BQ	J	0.01 50V Film	AB
C1713	95KUGAD121PP	J	120 25V Electrolytic	AD
C1714	95KUGCU222BV	J	2200p 1kV Ceramic	AD
C1715	95KUGCF102BX	J	1000p 50V Ceramic	AA
	or			
	95KUGCF102CB	J	1000p 50V Ceramic	AB
C1716	95KUGAF221PU	J	220 50V Electrolytic	AF
C1717	95KUGCF102BX	J	1000p 50V Ceramic	AA
	or			
	95KUGCF102CB	J	1000p 50V Ceramic	AB
C1718	95KUGAD121PP	J	120 25V Electrolytic	AD
C1719	95KUGCF102BX	J	1000p 50V Ceramic	AA
	or			
	95KUGCF102CB	J	1000p 50V Ceramic	AB
C1720	95KUGAD121PP	J	120 25V Electrolytic	AD
C1721	95KUGAF100QC	J	10 50V Electrolytic	AD
C1722	95KUGAF1R0PB	J	1 50V Electrolytic	AD
C1723	95KUGAF1R0PB	J	1 50V Electrolytic	AD
C1724	95KUGZ0798ZZ	J	100 25V Electrolytic	AC

RESISTORS

Ref. No.	Part No.	★	Description	Code
⚠ R701	95KUEEC474BE	J	470k 1/2W Carbon	AA
⚠ R703	95KUEZ0262ZB	J	Thermistor, 5D-11	AF
⚠ R704	95KUEGGR10AT	J	0.1 5W Cement	AE
⚠ R705	95KUEFE563AV	J	56k 2W Metal Film	AC
⚠ R706	95KUEEC824BE	J	820k 1/2W Carbon	AA
⚠ R707	95KUEEC824BE	J	820k 1/2W Carbon	AA
⚠ R708	95KUEFD271BH	J	270 1W Metal Film	AB
⚠ R709	95KUEEB100BE	J	10 1/4W Carbon	AA
⚠ R710	95KUEFD393BH	J	39k 1W Metal Film	AB
⚠ R711	95KUEFD393BH	J	39k 1W Metal Film	AB
⚠ R712	95KUEFD393BH	J	39k 1W Metal Film	AB
⚠ R713	95KUEEC471BE	J	470 1/2W Carbon	AA
⚠ R714	95KUEEB472BE	J	4.7k 1/4W Carbon	AA
⚠ R715	95KUEXCAC472	J	4.7k 1/10W Chip	AA
	or			
	95KUEXCAA472	J	4.7k 1/10W Chip	AA
⚠ R716	95KUEXCAC153	J	15k 1/10W Chip	AA
	or			
	95KUEXCAA153	J	15k 1/10W Chip	AA
⚠ R718	95KUEEB562BE	J	5.6k 1/4W Carbon	AA
⚠ R719	95KUEXCAC562	J	5.6k 1/10W Chip	AA
	or			
	95KUEXCAA562	J	5.6k 1/10W Chip	AA

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
⚠ R720	95KUEEB102BE	J	1k 1/4W Carbon	AA
⚠ R721	95KUEEB102BE	J	1k 1/4W Carbon	AA
⚠ R722	95KUEEB102BE	J	1k 1/4W Carbon	AA
R723	95KUEXCAC102	J	1k 1/10W Chip	AA
	or			
	95KUEXCAA102	J	1k 1/10W Chip	AA
R724	95KUEXCAC102	J	1k 1/10W Chip	AA
	or			
	95KUEXCAA102	J	1k 1/10W Chip	AA
R725	95KUEEB153BE	J	15k 1/4W Carbon	AA
R726	*See Controls*			
R727	95KUEXCAC392	J	3.9k 1/10W Chip	AA
	or			
	95KUEXCAA392	J	3.9k 1/10W Chip	AA
R728	95KUEFC390AV	J	39 1/2W Metal Film	AB
R729	95KUEEB561BE	J	560 1/4W Carbon	AA
R730	95KUEEB562BE	J	5.6k 1/4W Carbon	AA
R731	95KUEXCAC103	J	10k 1/10W Chip	AA
	or			
	95KUEXCAA103	J	10k 1/10W Chip	AA
R732	95KUEEB103BE	J	10k 1/4W Carbon	AA
R734	95KUEBBR27AM	J	0.27 Fuse Resistor	AC
R735	95KUEEB102BE	J	1k 1/4W Carbon	AA
R736	95KUEEB182BE	J	1.8k 1/4W Carbon	AA
R737	95KUEEB182BE	J	1.8k 1/4W Carbon	AA
R738	95KUEEC151BE	J	150 1/2W Carbon	AA
R739	95KUEEC151BE	J	150 1/2W Carbon	AA
R740	95KUEXCAC102	J	1k 1/10W Chip	AA
	or			
	95KUEXCAA102	J	1k 1/10W Chip	AA
R741	95KUEXCAC102	J	1k 1/10W Chip	AA
	or			
	95KUEXCAA102	J	1k 1/10W Chip	AA
R742	95KUEBBR10AN	J	0.1 Fuse Resistor	AC
R743	95KUEEC122BE	J	1.2k 1/2W Carbon	AB
R744	95KUEEB102BE	J	1k 1/4W Carbon	AA
R745	95KUEEB102BE	J	1k 1/4W Carbon	AA
R746	95KUEEB102BE	J	1k 1/4W Carbon	AA
R747	95KUEXCAC102	J	1k 1/10W Chip	AA
	or			
	95KUEXCAA102	J	1k 1/10W Chip	AA
R748	95KUEXCAC102	J	1k 1/10W Chip	AA
	or			
	95KUEXCAA102	J	1k 1/10W Chip	AA
R749	95KUEEC102BE	J	1k 1/2W Carbon	AA
R750	95KUEEB102BE	J	1k 1/4W Carbon	AA
R751	95KUEFD681BH	J	680 1W Metal Film	AC
R752	95KUEEB103BE	J	10k 1/4W Carbon	AA
R753	95KUEEB103BE	J	10k 1/4W Carbon	AA
R754	95KUEFD1R0BF	J	1 1W Metal Film	AC
R755	95KUEFD1R0BF	J	1 1W Metal Film	AC
R756	95KUEEB102BE	J	1k 1/4W Carbon	AA
R757	95KUEEB221BE	J	220 1/4W Carbon	AA

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POWER/BALLAST (Continued)

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R758	95KUEXCAC103	J	10k 1/10W Chip	AA
	or			
	95KUEXCAA103	J	10k 1/10W Chip	AA
R759	95KUEXCAC103	J	10k 1/10W Chip	AA
	or			
	95KUEXCAA103	J	10k 1/10W Chip	AA
R770	95KUEEC332BE	J	3.3k 1/2W Carbon	AB
⚠ R772	95KUECC825AE	J	8.2M 1/2W Solid	AB
⚠ R773	95KUECC825AE	J	8.2M 1/2W Solid	AB
⚠ R774	95KUEBBR10BA	J	0.1 Fuse Resistor	AC
R775	95KUEBD220AF	J	22 Fuse Resistor	AC
R1701	95KUEGER22AQ	J	0.22 2W Cement	AD
R1702	95KUEGER10AQ	J	0.1 2W Cement	AE
R1703	95KUEFD151BF	J	150 1W Metal Film	AC
⚠ R1704	95KUEEC220BE	J	22 1/2W Carbon	AA
R1705	95KUEEB330BE	J	33 1/4W Carbon	AA
R1706	95KUEEB330BE	J	33 1/4W Carbon	AA
R1707	95KUEGGR22AT	J	0.22 5W Cement	AE
R1708	95KUEEB330BE	J	33 1/4W Carbon	AA
R1709	95KUEFF182AM	J	1.8k 3W Metal Film	AC
R1710	95KUEFF182AM	J	1.8k 3W Metal Film	AC
R1711	95KUEEC4R7BE	J	4.7 1/2W Carbon	AA
R1712	95KUEEB102BE	J	1k 1/4W Carbon	AA
R1713	95KUEEC121BE	J	120 1/2W Carbon	AA
R1714	95KUEEB102BE	J	1k 1/4W Carbon	AA
R1715	95KUEEC104BE	J	100k 1/2W Carbon	AA
R1716	95KUEEC104BE	J	100k 1/2W Carbon	AA
R1717	95KUEEC104BE	J	100k 1/2W Carbon	AA
R1718	95KUEEB103BE	J	10k 1/4W Carbon	AA
R1719	95KUEZ0449ZZ	J	820k 1W Metal Film	AB
R1720	95KUEFD120BF	J	12 1W Metal Film	AC
R1721	95KUEFD683BF	J	68k 1W Metal Film	AC
⚠ R1722	95KUEBBR39AM	J	0.39 Fuse Resistor	AC
⚠ R1723	95KUEBBR39AM	J	0.39 Fuse Resistor	AC
R1724	*See Controls*			
R1725	95KUEFD1R8BE	J	1.8 1W Metal Film	AC
R1726	95KUEFD1R8BE	J	1.8 1W Metal Film	AC
R1727	95KUEEB102BE	J	1k 1/4W Carbon	AA
R1728	95KUEEB103BE	J	10k 1/4W Carbon	AA
R1729	95KUEEB103BE	J	10k 1/4W Carbon	AA
R1730	95KUEEB330BE	J	33 1/4W Carbon	AA

RELAY AND SWITCH

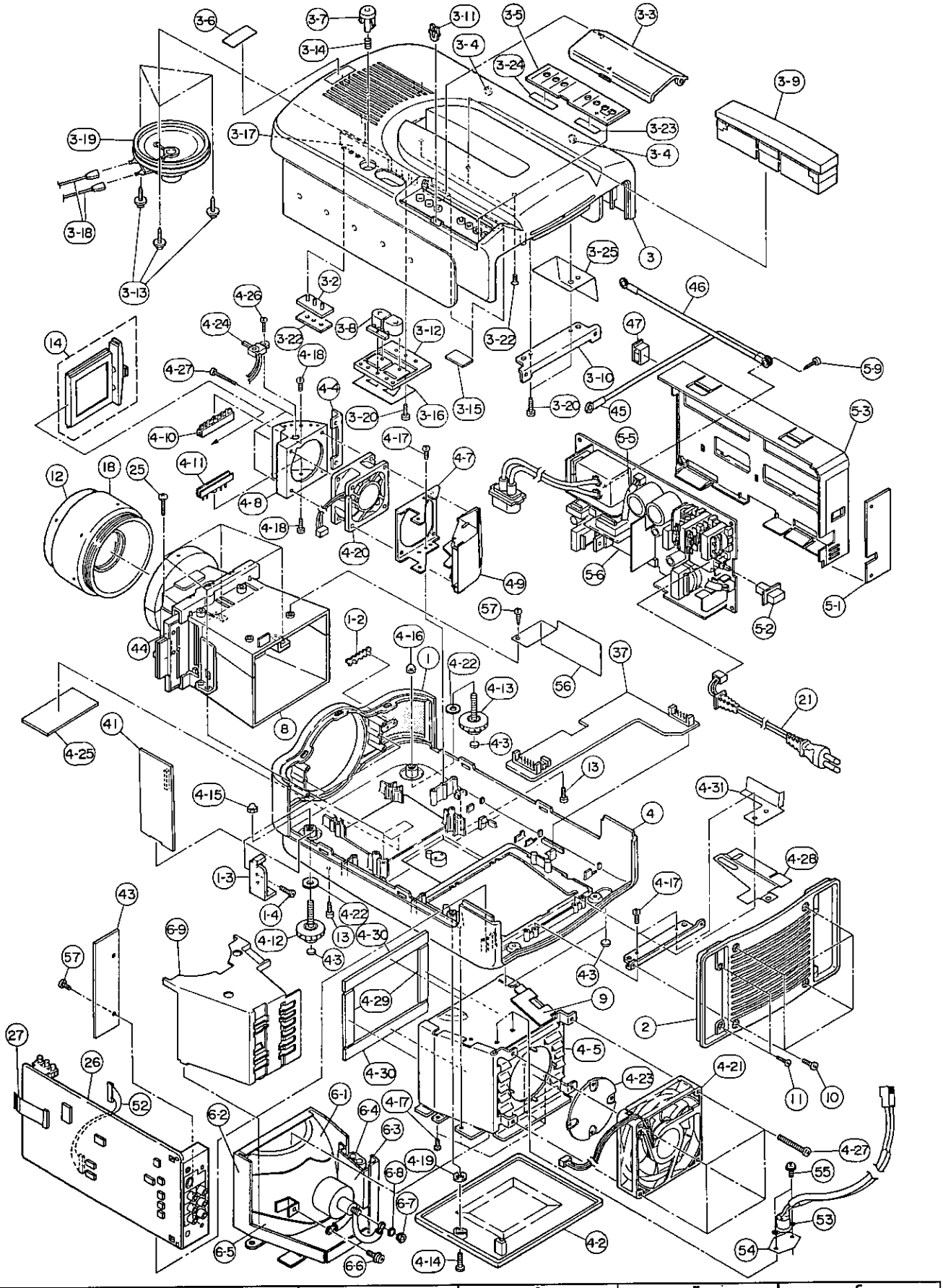
Ref. No.	Part No.	★	Description	Code
⚠ RY701	95KPHZ0096ZZ	J	Relay	AL
⚠ SW701	95KPEZ0226ZZ	J	Power Switch	AM

MISCELLANEOUS PARTS

Ref. No.	Part No.	★	Description	Code
CN701	95KECB7664ZZ	J	Connector	AH
CN702	95KPZZ0613ZZ	J	Connector	AE
CN703	95KPZZ0613ZZ	J	Connector	AE
CN704	95KPZZ0556ZZ	J	Connector	AD
CN705	95KPZZ0613ZZ	J	Connector	AE
⚠ F701	95KPJCZZ0050	J	Fuse, T6.3AH, 250V	AH
F702	95KPJT0085ZZ	J	Fuse, H125A, 127°C	AE
FH1	95KPZZ0625ZZ	J	Fuse Holder	AB
⚠ F1701	95KPJT0136ZZ	J	Fuse, H130A, 136°C	AE
FB1701	95KBFZ89250Z	J	Ferrite Bead	AB
FB1702	95KBFZ89250Z	J	Ferrite Bead	AB
FB1703	95KBFZ89250Z	J	Ferrite Bead	AB
FB1704	95KBFZ89250Z	J	Ferrite Bead	AB
⚠ ICP1701	95KPJP0027ZZ	J	IC Protector	AF
P	95KPKZ0194ZZ	J	Plug 2-pin	AC
EB	95KPCZ0147ZZ	J	Connector 14-pin	AG

End of POWER/BALLAST UNIT

CABINET AND MECHANICAL PARTS/
GEHÄUSE UND MECHANISCHE BAUTEILE



CABINET AND MECHANICAL PARTS

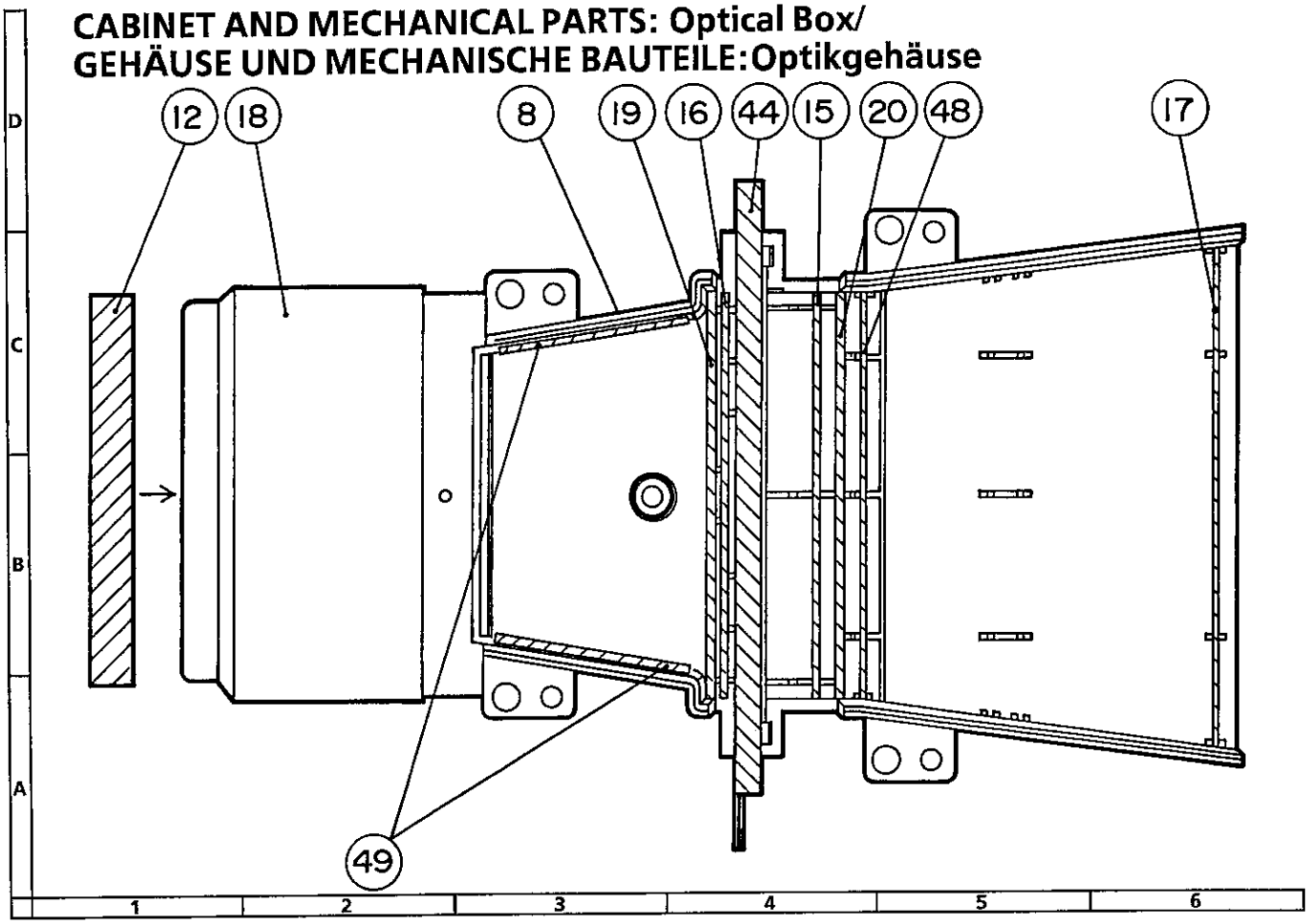
Ref. No.	Part No.	★	Description	Code
1	CBDYF1034CE02	J	Front Body Ass'y	AT
1-1	*Not Available*	–	Front Body	—
1-2	HBDGB1007GESB	J	Badge "SHARP"	AD
1-3	LANGT9973CEFW	J	Angle, fix Front/Bottom Body	AD
1-4	XEBSD30P12000	J	Screw	AA
2	GBDYR1017CEKC	J	Rear Body	AP
3	CBDYT1028CEK1	J	Top Body Ass'y	BH
3-1	*Not Available*	–	Top Body	—
3-2	GCOVA1440CEZZ	J	LED Cover	AC
3-3	GDORT1065CEKB	J	Door, Top side	AK
3-4	—— *Not Used* ——			
3-5	HINDP4151CESB	J	Indication Plate, in Door	AG
3-6	HINDP4201CESD	J	Indication Plate, Note	AD
3-7	JBTN-1768CESA	J	Button, Power	AE
3-8	JBTN-1779CESA	J	Button, Vol-Up/Down	AE
3-9	JHNDA1023CESB	J	Handle	AY
3-10	LANGT2051CEFW	J	Angle	AD
3-11	LHLDS1010GEZZ	J	Door Catch	AA
3-12	LHLDZ1701CEZZ	J	Button, Holder	AC
3-13	LX-HZ3066CEFD	J	Screw, Speaker	AB
3-14	MSPRC0148CEFW	J	Spring, Power Button	AA
3-15	PCOVH1028CEZZ	J	Light Shielding Cover	AA
3-16	PCOVZ1007CEZZ	J	Light Shielding Cover, for Button	AC
3-17	—— *Not Used* ——			
3-18	QCNW-3465CEZZ	J	Connecting Wire, Speaker	AE
3-19	VSP0080P-H4WA	J	Speaker	AM
3-20	XEBSD30P10000	J	Screw, ×3	AA
3-21	XESSD30P10000	J	Screw, fix Handle, ×3	AA
3-22	—— *Not Used* ——			
3-23	—— *Not Used* ——			
3-24	—— *Not Used* ——			
3-25	PZETK0010CEZZ	J	Shielding Plate	AD
4	CBDYU1011CEK6	J	Bottom Body Ass'y	BQ
4-1	*Not Available*	–	Bottom Body	—
4-2	GDORU1002CESC	J	Door, Bottom Side	AK
4-3	GLEGG9027CESB	J	Leg, Rubber, ×4	AB
4-4	—— *Not Used* ——			
4-5	LANGQ9167CEFW	J	Lamp Guide Angle	AS
4-6	LANGT2051CEFW	J	Angle	AD
4-7	LANGT9952CEFW	J	Angle, Fan	AE
4-8	LANGK0430CEFW	J	Duct Angle	AD
4-9	LHLDZ1808CEZZ	J	Duct Holder	AF
4-10	LHLDZ9118CEZZ	J	Rail Holder-Top	AC
4-11	LHLDZ9119CEZZ	J	Rail Holder-Bottom	AC
4-12	LX-BZ1003CESA	J	Adjuster-R	AG
4-13	LX-BZ1004CESA	J	Adjuster-L	AE
4-14	LX-BZ3274CESC	J	Screw, fix Lamp Case	AF
4-15	LX-NZ3095CEFD	J	Nut-R	AA
4-16	LX-NZ3123CEFE	J	Nut-L	AD
4-17	XEBSD30P10000	J	Screw, ×5	AA
4-18	XEPSF30P06000	J	Screw, ×2	AA
4-19	XRESJ30-06000	J	E-Ring	AA
4-20	NFANR0039CE00	J	Fan-A	AY
4-21	NFANR0047CE01	J	Fan-B	AX
4-22	PSPAH0393CE00	J	Spacer	AA
4-23	PSLDH3027CEFW	J	Shielding Plate	AD
⚠4-24	QCNW-3329CEZZ	J	Wire, Leaf Switch	AM
4-25	TLABM3677CEZZ	J	Model Label	AF
4-26	XBPSF26P06000	J	Screw, ×1	AA
4-27	XBPSF40P30000	J	Screw, fix Fan, ×8	AA
4-28	PZETK0008CEZZ	J	Shielding Plate	AE
4-29	PSPAZ0134CEZZ	J	Spacer, ×2	AD
4-30	PSPAZ0135CEZZ	J	Spacer, ×2	AD
4-31	PZETK0011CEZZ	J	Shielding Plate	AC
5	*Not Available*	–	Power/Ballast Unit Ass'y	—
5-1	HINDP4444CESA	J	Indication Plate	AF
5-2	JKNBP1065CESB	J	Button	AC
5-3	LCHSM0249CEZZ	J	Angle	AU
5-4	—— *Not Used* ——			
5-5	QCNW-3419CEZZ	J	Wire	AC
5-6	*Not Available*	–	Power/Ballast Unit	—
5-7	—— *Not Used* ——			
5-8	—— *Not Used* ——			
5-9	XTASD30P12000	J	Screw	AA
6	*Not Available*	–	Lamp Unit	—
⚠6-1	CLMPF0016DE06	J	Lamp	CC
6-2	LANGQ9168CEFW	J	Case	AP
6-3	LANGH0114CEFW	J	Light Shielding Cover	AF
6-4	QPLGN0156FJZZ	J	Plug	AN
6-5	MSPRB0015CEFW	J	Spring	AF
6-6	LX-BZ3270CEFN	J	Screw	AA
6-7	LX-NZ3108CEFN	J	Nut	AA
6-8	LX-WZ3102CEFN	J	Washer	AA
6-9	PCOVZ1019CEZZ	J	Cover	AN
7	GBOXZ1007CEZZ	J	Optical Box, Top	AR
8	GBOXZ1008CEZZ	J	Optical Box, Bottom	AT
9	LANGH0115CEFW	J	Light Shielding Plate	AE
10	LX-BZ3279CESC	J	Deco. Screw-A, ×4	AA
11	LX-HZ3067CESC	J	Deco. Screw-B, ×2	AA
12	PCAPH1013CEZZ	J	Lens Cap	AG
13	XTPSD30P16000	J	Screw	AA
14	PFILD0031CEKC	J	Filter	AM
15	PFILW0081CEZZ	J	Filter, In H (with Glass)	AX
16	PFILW0042CE01	J	Filter, Out H (with Glass)	AY
17	PFILW0089CEZZ	J	UV/IR Cut Filter	AZ
18	PLNS-0032CESB	J	Projection Lens	BS
19	PLNS-0033CEZZ	J	Furenel Lens	AT
20	PLNS-0037CEZZ	J	Lens	AQ

CABINET AND MECHANICAL PARTS (Continued)

Ref. No.	Part No.	★	Description	Code
⚠21	QACCV2012CESA	J	AC Cord	AP
22	XEBSD30P08000	J	Screw, ×3	AA
23	XEBSD30P12000	J	Screw, ×4	AA
24	XEBSD30P16000	J	Screw, ×1	AA
25	XTASD40P16000	J	Screw, ×4	AA
26	*Not Available*	–	Main Unit	—
27	QCNW-3839CEZZ	J	Panel Flexible Flat Cable	AG
28	—— *Not Used* ——			
29	—— *Not Used* ——			
30	—— *Not Used* ——			
31	—— *Not Used* ——			
32	—— *Not Used* ——			
33	—— *Not Used* ——			
34	—— *Not Used* ——			
35	—— *Not Used* ——			
36	—— *Not Used* ——			
37	*Not Available*	–	Connective Unit	—
38	—— *Not Used* ——			
39	—— *Not Used* ——			
40	XEBSD30P16000	J	Screw	AA
41	*Not Available*	–	Scan Converter Unit	—
42	—— *Not Used* ——			
43	PSPAV0126CEZZ	J	Light Shielding Plate	AB
44	RLCDP0004CEZZ	J	LCD Module	DE
45	QCNW-3457CEZZ	J	Wire	AE
46	QCNW-3419CEZZ	J	Wire	AC
47	LHLDW1173CEZZ	J	Wire Holder	AD
48	PFiLW0062CEZZ	J	UV/IR Filter	BH
49	—— *Not Used* ——			
50	LX-BZ3220CEFD	J	Screw	AA
51	—— *Not Used* ——			
52	QCNW-3837CEZZ	J	Connecting Wire	AL
53	RBiM-0003CEZZ	J	Bimetal	AN
54	PSPAZ0135CEKZ	J	Spacer	AD
55	LX-BZ3220CEFD	J	Screw, ×2	AA
56	PZETK0009CEZZ	J	Screw	AD
57	XEBSD30P08000	J	Screw	AA

— End of CABINET AND MECHANICAL PARTS —

CABINET AND MECHANICAL PARTS: Optical Box/ GEHÄUSE UND MECHANISCHE BAUTEILE:Optikgehäuse



Ref. No.	Part No.	*	★	Description	Code

SERVICE PARTS

	QCNW-3467CEZZ	J		Extension Cable Main Unit ⇔ Connective Unit	EA
	QCNW-3468CEZZ	J		Extension Cable Power/Ballast Unit ⇔ Connective Unit	EB
	QCNW-3751CEZZ	J		Extension Cable Main Unit ⇔ LCD Panel	AL

—— End of SERVICE PARTS ——

SUPPLIED ACCESSORIES

12	PCAPH1013CEZZ	J		Lens Cap (installed)	AG
14	PFILD0031CEKC	J		Filter (installed)	AM
	QPLGA0010GEZZ	J		AC Plug Adaptor	AF
	TINS-5389CEZZ	J		Operation Manual	AW

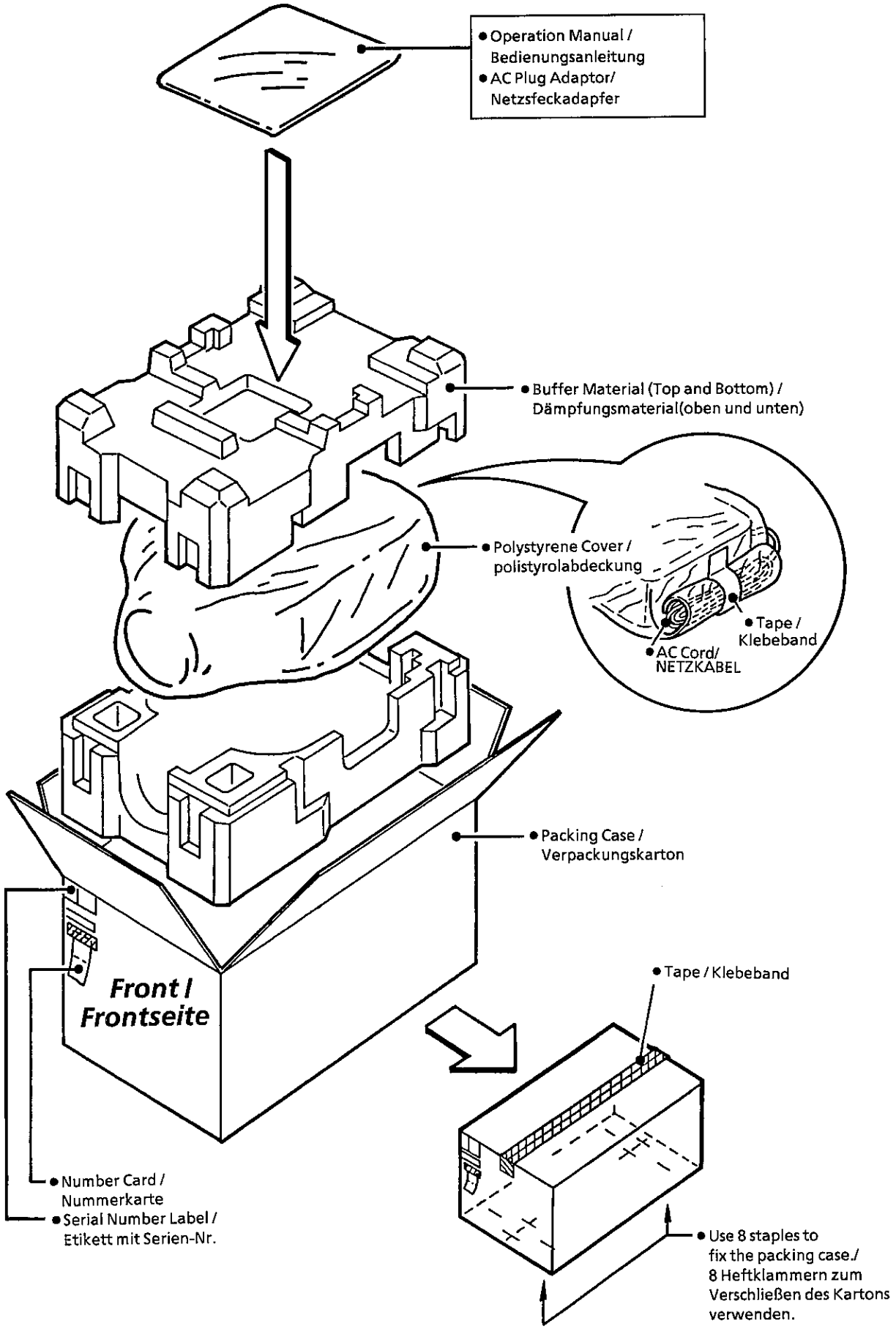
—— End of ACCESSORIES ——

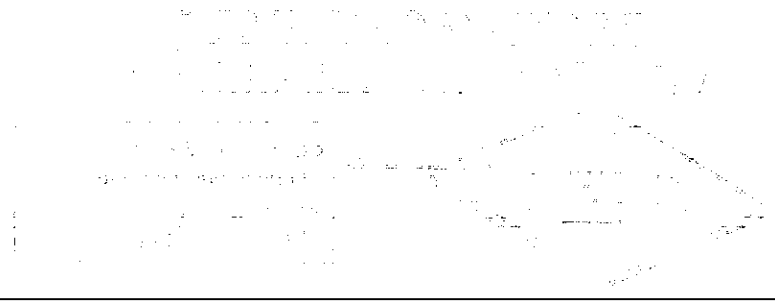
PACKING PARTS

	SPAKC4712CEZZ	–		Packing Case	—
	SPAKP0678CEZZ	–		Polystyrene Mat	—
	SPAKX2373CEZZ	–		Buffer Material (Top and Bottom)	—
	TLABK0001TAZZ	–		Number Card	—
	TLABN0029CEZZ	–		Serial Number Label	—

—— End of PACKING PARTS ——

PACKING OF THE SET
VERPACKUNG DES GERÄTS


● Operation Manual / Bedienungsanleitung
● AC Plug Adaptor/ Netzsfeckadapfer
● Buffer Material (Top and Bottom) / Dämpfungsmaterial(oben und unten)
● Polystyrene Cover / polistyrolabdeckung
● Tape / Klebeband
● AC Cord/ NETZKABEL
● Packing Case / Verpackungskarton
Front / Frontseite
● Tape / Klebeband
● Number Card / Nummerkarte
● Serial Number Label / Etikett mit Serien-Nr.
● Use 8 staples to fix the packing case./ 8 Heftklammern zum Verschließen des Kartons verwenden.



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